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Table of Contents

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ORIGINAL ARTICLES— Page

The Sir Richard Stawell Oration: Infectious Enthusiasm, by Sir William Upjohn 1025

Some Aspects of Alcohol in Body Fluids: Part III. Study of Alcohol in Blood in Different Parts of the Body, by N. E. W. McCallum and J. G. Scroggie 1031

Antihistamines and the Calcium Carbimide-Alcohol Reaction, by J. M. Collins and L. M. Brown .. 1032

A Study of Subdural Hæmatoma, by Douglas Miller and K. F. Bleasel 1034

REVIEWS—

The Heart in Industry 1037

Practical Clinical Management of Electrolyte Disorders 1037

NOTES ON BOOKS—

A Pocket Book of Proprietary Drugs 1037

Notification of Communicable Diseases 1038

Notes on Injections for Nurses 1038

BOOKS RECEIVED 1038

LEADING ARTICLES—

Medical Services and Medical Education in Papua and New Guinea 1039

CURRENT COMMENT—

Culdoscopy 1040

Treatment of Tuberculosis in Children 1040

"Brave and Bloody Work" 1041

ABSTRACTS FROM MEDICAL LITERATURE— Page

Ophthalmology 1042

Oto-Rhino-Laryngology 1043

ON THE PERIPHERY—

Looking Backwards 1044

OUT OF THE PAST 1045

CORRESPONDENCE—

Notification of Staphyloccocal Infections 1045

Phenylbutazone Versus the Steroids 1046

Giant Hæmangioma with Thrombocytopenia 1046

MEDICAL MATTERS IN PARLIAMENT—

Senate 1047

DISEASES NOTIFIED IN EACH STATE AND TERRITORY OF AUSTRALIA 1047

NOTES AND NEWS 1047

NAVAL, MILITARY AND AIR FORCE—

Appointments 1048

NOMINATIONS AND ELECTIONS 1048

DEATHS 1048

DIARY FOR THE MONTH 1048

MEDICAL APPOINTMENTS: IMPORTANT NOTICE .. 1048

EDITORIAL NOTICES 1048

The Sir Richard Stawell Oration.

INFECTIOUS ENTHUSIASM.

By SIR WILLIAM UPJOHN, O.B.E., M.D., M.S., F.R.C.S., F.R.A.C.S.

Melbourne

ON DECEMBER 5, 1933, Dr. Alfred Edward Rowden White wrote a letter to the President of the British Medical Association (Victorian Branch) from which I quote the following paragraphs:

> For many years, I have recognized, with profound appreciation, the fine example which Sir Richard Stawell has given to the Medical profession by the great work he has done as a clinical teacher, by the high character of his work as a physician, and by his splendid sense of citizenship.
>
> Sir Richard Stawell's life-work has been consistently unselfish, and his great gifts of teaching, of diagnosis and sound judgment have been an inspiration to his younger colleagues in Victoria and throughout Australasia.
>
> It has occurred to me that this Master in our profession should be permitted, in the latter years of his life, to recognize definitely the high esteem and the goodwill with which his colleagues regard him.
>
> Feeling as I do, I consider it a privilege to place with the Branch, the sum of one thousand pounds, to be controlled by Trustees, with the object of commemorating Sir Richard Stawell and his work, and perpetuating his memory by an Annual Oration.

[1] Delivered at a meeting of the Victorian Branch of the British Medical Association at the Royal Australasian College of Surgeons on October 5, 1960.

In this letter you will note references to Sir Richard Stawell's distinction as a physician, as a clinical teacher, as a man with a splendid sense of citizenship and as one who was an inspiration to his younger colleagues in Victoria and throughout Australia. There are not many left who, like myself, knew Sir Richard at the period when he was a great teacher of clinical medicine; and I can subscribe to the tributes paid by Dr. Rowden White to his friend.

On thinking about Sir Richard, or, as he was then known to his students, Dr. Stawell or Dickie, it seems to me that my most abiding memory of him is of his quiet but contagious enthusiasm.

Enthusiasm, like so many words in our English language, has acquired a variety of meanings by constant use and misuse. Originally, as its Greek derivation implies, it meant a fervour believed to be the result of possession by a god, but in ordinary present-day English it means a strong and enduring interest in something worthy of such interest. We are more apt to call an enthusiast about some unworthy subject a fanatic or a "fan", which also derives its meaning through *fanum*, a temple, from a religious source—a fanatic being one who overdid his enthusiasm in temple observances. We are still inclined to think of an enthusiast as being someone of an ebullient type; but there can be a quiet enthusiast as well as a boisterous one.

Enthusiasm embraces all human activities, physical, mental and spiritual. We think of the great founders and missionaries of world-wide religions, of reformers and revolutionaries, of military conquerors and of the founders of great political and social systems. The results of such enthusiasms may, like all human affairs, be good or evil.

An enthusiast may influence others of his fellow men to accept his views or to follow his example, and such acceptance may persist and extend long after his own lifetime. Or perhaps he may fail to communicate his enthusiasm to others around him; he may be rebuffed by his contemporaries as a confounded bore, or discovered in a later age as a genius who lived before his time.

It is of some interest to speculate why enthusiasm is sometimes "catching" or communicable to others, and at times confined to the individual. It would seem as if there must be an overt or latent desire in the audience of the enthusiast to hear and accept his message. This would seem to be true in our own time, when nationalist leaders, of various political views, find an audience perplexed and unsettled, ready to believe and act on the words of a leader full of enthusiasm for his cause.

The feeling of most of mankind of insufficiency in themselves—that there is some power above transient human power—makes it possible for the enthusiast in some crazy religious belief to get converts in astounding numbers. They appear in all countries, but seem to be most noticeable in the United States of America, and where American influence has spread.

Two things are necessary, then—a deep and persistent and obvious interest in his subject by the teacher, and a desire and readiness of the disciples to share in the knowledge of his subject. Stawell was such a teacher, who without any display of missionary zeal compelled his students and colleagues to be interested in what interested him intensely and persistently. He implanted in some of them an abiding interest in clinical work, which has diffused through them down to clinical teachers of our present time. He was one, and perhaps the most renowned, of a remarkable trio of clinical teachers whose enthusiasm was communicated to their students and juniors in the Children's Hospital, the Melbourne Hospital and the Alfred Hospital.

These three were Jeffreys Wood, Richard Stawell and Hamilton Russell. It is one of the proud traditions of our Royal Children's Hospital that each of these men, for varying periods, was a member of the honorary staff of the Children's Hospital. It is no accident that clinical work at the Children's Hospital was part of their professional development to clinical eminence. A child may be too young, or otherwise unable, to describe his symptoms; the child's doctor must therefore rely for his information on carefully and critically made clinical examinations and observations. It is an excellent training field in clinical observation, and the enviroment of a children's hospital is a profoundly humanizing one on its medical staff. These three were close friends, and for years lived together till two of them, Wood and Stawell, married.

Though some maladies interested Stawell more than others, no sick child was uninteresting to him.

> One time, at the Children's Hospital, when I was his house physician, he was doing a ward round, and I thought to save his time by referring to one convalescent child as being not of much interest to him. He nevertheless went through his examination of the child, pointing out this and that matter of interest as he proceeded earnestly in his usual way, so that, before he passed on to the next cot, I was convinced that this was the most interesting child in the ward. I think he really was interested, and that it was not a polite rebuke to a junior not as enthusiastic as himself.

In the course of many years I was not the only one to be infected with his enthusiasm. He had as his more illustrious disciples, to whom he communicated and transmitted his enthusiasm, such teachers as Hume Turnbull, Stewart Ferguson, Harry Stephens, Alfred White, Leslie Forsyth, Sidney Sewell and Stewart Cowen. He had at different stages of his life medical friends whose honest enjoyment in their work was a stimulus to students. I have mentioned Jeffreys Wood and Hamilton Russell. Others I can recall were Charles Martin, Thomas Dunhill, J. McKeddie, Frank Andrew, Alan Newton and Charles Kellaway. All these men were infective enthusiasts, mostly quiet, a few fervent.

Jeffreys Wood, throughout his life, devoted himself to pædiatrics. Every pædiatrician of this city, up till recent times, had been a student under him, fascinated by his way with infants and children, his amazing clinical experience, his kindly manner, and his generosity in passing on his own knowledge in the true Hippocratic tradition to his juniors. With his friend Frank Hobill Cole, he did much to establish the happy traditions of our Royal Children's Hospital.

Of Hamilton Russell I have spoken at length to many of you in another place; but here I would say that, as Jeffreys Wood stands out as an influence in the history of the Children's Hospital, so does Hamilton Russell as the inspiring influence in the story of the Alfred Hospital. Russell's great influence was his emphasis, as exemplified by himself, on the need for thinking out the problem of the individual patient, his originality of thought, his avoidance of following the conventional and accepted practice without thinking whether it was the rational and appropriate thing for the patient under consideration.

Having thus very briefly referred to some of Richard Stawell's medical associates, I would now say a little about his appearance and personality. He was tall, of spare build, dignified and serious, with an intent gaze through his spectacles, yet at appropriate times witty and humorous, and unashamed, when the occasion warranted, to give vent to his characteristic laugh. He was the very model of the cultured, courteous and kindly physician. This may seem, to anyone who has not known him, the picture of a man not likely to inspire his students. His influence derived partly from our respect for his knowledge, but chiefly from our recognition of his quiet, sustained enthusiasm in clinical work, and his obvious intention to bring all the help he could to his patients, while using them as means of instructing his students. By example and rebuke he ensured that the patients were treated by the students respectfully and with consideration.

He was, at the time when I was a student, very patient in teaching physical signs, and perhaps his teaching commanded more attention through his peculiar mode of speech, which was never monotonous, but more in the nature of a succession of hushed minor explosions or gasps. He was not a good speaker naturally, but by culture and practice he became a speaker who always commanded close attention. He was earnest, but never boring, in talking to students.

In addressing a meeting, he held the attention of his audience by his knowledge of his subject, by his obvious interest in what he was saying, by his appropriate choice of words and by his clear and elegant use of English grammatical construction. Moreover, as I have suggested, his discourse was lightened by humour. He was in great demand as a speaker at medical and other gatherings, and was always sure of a highly appreciative audience. I was told by an old friend of his that he was not by nature a good or willing speaker in public, but, by characteristically earnest application to the task, became one of the best in the Melbourne of his time.

It was a time when there were many remarkably good speakers in the medical profession. There was Fred Bird, deep-voiced, urbane and well-read; Felix Meyer, the dramatic orator, who looked the part with his leonine head of hair; Leo Kenny, musical-voiced, with a flowing stream of perfect and unhesitating diction; James Barrett, omniscient and dominatingly persuasive. There were no public address systems then to blare, and to distort the natural voice; but any one of these men could be distinctly heard in any hall in Melbourne, and could hold the attention of his audience from beginning to end.

As students, we had few opportunities for hearing Stawell speak at length. His teaching was carried out in the old out-patient department of the now demolished Melbourne Hospital, built in 1865. The surroundings were such as would exasperate a modern out-patient physician beyond endurance. The room was in a single-storey building of rough brickwork, painted a dull public works brown; there were a few chairs, and a table for

writing, and some creaky high examination couches upholstered in slippery American oil-cloth. The room adjoined the laundry with its noisy machinery; so it was not always possible for Stawell to teach a new student to be able to distinguish the sounds of a thumping heart from the conducted thumping sounds of the steam pump next door. At this time there was another weekly recurrent disturbing sound which regularly brought his teaching to a temporary standstill. Every week, about the same time half-way through the morning, an itinerant emphysematous musician would halt in the street outside the outpatient room, and play a tune on a melancholy deep-toned big brass instrument, in a gasping slow *tempo* owing to his shortness of breath. It was always the same tune week after week—the "Merry Widow Waltz". As the first four notes were heard in their dreary, slow, booming repetition, Stawell would cease his instruction, and would await with a look of pained resignation the melancholy progress of the waltz to its dyspnœic end.

There were not many occasions when he would interrupt his morning teaching, but there was one which was periodic, though at a longer interval than the "Merry Widow Waltz" performance. The students ranked him easily the best clinical teacher in the out-patient department. Students were allotted to the various out-patient physicians, but some of these honoraries were not good teachers or were unpunctual in attending; so bit by bit their students would drift into Stawell's room. He would, after some weeks of this infiltration, suddenly wake up to the fact that nearly the whole year of students had crowded into his room. He would then erupt and order out all except those properly allocated to him. For a few weeks he would have breathing space; then one by one the intruders would creep back, till the increasing audience provoked another expulsion, and so the cycle went on. It must have been very trying for him, but it was really a tribute to his standing as a clinical teacher. Students then, as now, were critical; but students are good judges of what is good and what is not good in their teachers. His enthusiasm infected us because, I suppose, we must have been predisposed to such infection. Most students, after their preclinical studies, are eager to get to clinical study, they feel that at last they are learning to be doctors.

When there is no predisposition to accept the thoughts or words of the enthusiast, he is more likely to be opposed than to be accepted. But when individuals or communities have vague desires and sentiments directed to an objective which they cannot clearly define, they are roused to enthusiasm by a leader who can give expression and form to their unclarified thoughts, hopes, and wishes. We have seen such almost miraculous occurrences in the recent past. Hitler's inspiration of the Germans at the end of the Hindenburg era astonished the world; but he interpreted and expressed to, and for, the Germans their feelings of degradation after the end of the first World War, with the consequent wish to reassert themselves in what they felt was their right position in Europe. Here was a vast population prone to infection by an enthusiast, and the tragedy for humanity was that Hitler was a frenzied man whose ability was not as great as his enthusiasm. His historical opponent was Winston Churchill, an enthusiast all his life; yet his enthusiasm in the long years before the war did not infect parliament or the British people. His exhortations were derided or condemned. However, when war came, and the British people lost confidence in their pre-war leaders and felt the need to give expression to the traditional British stubbornness in the face of aggression, they found in Churchill a man who could express, in oratory and action, their own thoughts and will to endure, their calm resolve to overcome difficulties, their refusal to be daunted by defeat and disaster, their courage to fight on when they seemed nearly spent, and their unwavering determination to go on till the enemy was completely and utterly defeated. British men and women were inspired, by a great and enthusiastic leader, to express in action their united will, and their faith that they would ultimately survive and win. But, when the war was over, Churchill's peace-time enthusiasms found little response in them. Their thoughts were going along in other directions. He ceased to inspire them, and they were predisposed to infection by enthusiasts for the Welfare State. The British will never forget the bond between him and them in those years of "blood and toil, tears and sweat"; but after the war they were eager for things for which he himself had no enthusiasm.

Some enthusiasts may lose their power of inspiring their followers, whereas others remain an inspiration throughout life and even after death. Nelson's power to inspire the British navy did not perish when he was killed at Trafalgar. Similarly, the great world religions have spread, and are still attracting new converts, through the centuries since their founders inspired their first disciples.

I have heard from students who were in Stawell's classes in his last years at the Melbourne Hospital that he was no longer the great inspiration that he was to my generation. He still maintained his influence and prestige among his contemporaries; but it may be that medicine, in his last teaching days, had more science coming into it, and that purely clinical teaching did not find a receptive student audience.

Contagious enthusiasm moving great masses of people has a variety of origins and stimuli. Words or actions, or music, may be the obvious causes in some instances; but at other times the cause is as mysterious as the sudden and apparently spontaneous and simultaneous movements of flocks of birds and masses of the lower animals. Oratory and the written word have been responsible for profound effects on masses of humanity, and have changed the course of history. Actions are seen by a limited number of spectators; but we know how the acts of "V.C.'s" in war and of brave men in civil disasters such as shipwreck, fire and flood, have inspired their companions to make superlative efforts to achieve success in what had seemed to be hopeless situations.

Unfortunately, it cannot be denied that vicious acts by mob leaders, enthusiastic in their destructiveness, may spread with horrifying rapidity to people normally decently behaved. Riots and mob violence are certainly communicable diseases of society. Some of you may remember how astounded we were in Victoria, at the rapid upsurge of looting and mob violence which followed the action of a hooligan in smashing a window in Swanston Street on the afternoon of Derby Day at the beginning of the police strike in 1923.

I can well remember Stawell's expression of shocked surprise that such civil disorder and criminality could so rapidly erupt and spread in the Melbourne which he thought he knew so well.

The vandalism of the present time among juvenile gangs is commonly an infectious emulation of the acts of the gang leader, who ranks high in the esteem of the members of his gang. The slavish following of fashions in dress, and hair style, and behaviour, in both sexes may be ranked as an ignoble form of infectious enthusiasm. Some of this is undoubtedly stimulated by commercial interests. It spreads even to toddlers, whose enthusiasm is aroused by the acts and appearances on the films and television of the bold actor heroes of the wild west, so that our streets are alive with little Davy Crocketts and other western heroes toting large, showy, toy revolvers, much to the financial gain of the stores. In much the same way, the mass enthusiasm of Mothers' Day is more a tribute to the sales-promotion powers of the merchants than to an outburst of popular filial enthusiasm.

The spreading of enthusiasm by rhythm, song and music is both ancient and modern, both savage and civilized. The savage tom-tom beater and the modern star jazz drummer can rouse a receptive audience to a frenzy which seems insane and incredible to the unreceptive contemptuous observer. War whoops of Red Indians and battle cries of white men have a similar power of

communicating fervour. On a higher plane of communicating emotional enthusiasm is the song, specially the martial song. Every nation has many of these, but two particularly come to my mind—"The Marseillaise" and the Welsh song known to the English as "The Men of Harlech". The Marseillaise, composed by Rouget de Lisle in 1792 and called by him "The Song of the Army of the Rhine", was not only a song which roused its original hearers in the early days of the French revolution, when sung by the young *Marseillais* entering Paris; it has repeatedly raised and spread enthusiastic response in Frenchmen throughout the years since it was first delivered with such fire by Rouget de Lisle. Even more, it has repeatedly inspired greater fervour when sung by revolutionists of other nations, often enough, in modern times of political turmoil, the same tune with other words.

The music of "The Men of Harlech" had always seemed to me a fine, rousing tune; but I never appreciated its real capacity to evoke mass enthusiasm till one dreary evening in France, during one of the recurring series of sickening mass slaughters of youth which goes down in history as the Battle of the Somme. This particular evening, convoys of battle casualties were arriving at our field medical unit discharging a seemingly unending stream of mud-covered, grey-faced and utterly weary wounded men. The din of the artillery had made sleep impossible for days and nights, and they had not even the stimulus which might have come if there had been victory instead of the failure of a futile frontal attack. Many of these young British soldiers were not English or Scotch or Canadian or Australian; they were something new to me—Britons, many of whom did not speak English or understand Australian. They were from Welsh units, and in addition to their military misery, they must have had the added wretchedness of feeling themselves among strangers who could not understand them or their feelings. We went about our jobs, doing what we could for them and their wounds, but it was very depressing working with such dejected, weary, silent patients. By one of those queer occurrences which happen in war, out of the blue, there appeared among us in the evening a small party of Welsh singers. I do not know whether they were part of a concert party, or nurses, or V.A.D's from other units, for they disappeared later as mysteriously as they came, while we were still busy at our work. But they started singing in Welsh, and attracted at once some notice from the previously apathetic patients. Gradually, as the songs went on, the interest of the men grew; then from out of the party stepped a flashing-eyed, dark-haired young Welshwoman who started to sing "The Men of Harlech". I could not know the Welsh words, but I knew what she was singing, because I knew the tune. She sang like one possessed, and I have never seen a more amazing sight than the transformation in those Welsh wounded. They threw off their weariness and sang with fiery enthusiasm with the girl singer, their eyes flashing like hers and their faces full of expression. The singers left soon after, but the men were changed; they chatted animatedly to one another and were resuscitated not only in spirit, but bodily, too.

I did not understand the words of the song, and my Welsh ancestry is rather remote; but the enthusiasm with which that Welsh girl infected those poor lads infected me too. I can understand how critics who come to a meeting to scoff can be converted by enthusiasts who have the gift of communicating their own enthusiasm to their audience.

Quite apart from stirring song, man may convey his enthusiasm to others by the vivacity of his speaking voice. Monotony of diction kills enthusiasm in the listener, whereas ordinary words expressed with variety, modulation and liveliness may be charming and almost lyrical. In Scotland, forty years ago, I heard an elderly woman telling stories of what happened in her neighbourhood in the Jacobite rebellion of 1745, so interestingly that the events seemed recent. She told of these old happening with such earnestness and animation, and with such glee at the tricky outwitting of the British soldiers, that I felt an enthusiasm for the vanquished Jacobites that I had never felt when I had heard the stories told in a matter-of-fact manner, in far-away Australia, by older Scottish relatives. Perhaps I was a more receptive audience hearing the stories on the actual historic site in Scotland.

Some of you may remember, in that pleasant first book of H. V. Morton's, "In Search of England", how he relates the manner in which an elderly verger entranced him with the place as he conducted him around Winchester Cathedral. I had no such conductor when I visited Winchester; but the very building in its severe Norman dignity and with Winchester's association with England's early history filled me with as much enthusiasm as it did Morton. I saw there the tombs of kings of Wessex, before England was a united England, and evidences of a time when Winchester was the capital of England before national power was located at London and Westminster. Only one evidence of its old ascendancy as the capital city of England remains in Australia, so far as I know. The old standard weights and measures of England were kept at Winchester when it was the capital, and pharmacists still speak of a large bottle of certain liquids as "a Winchester". It holds the old quart measure of Winchester.

In Britain, much of her historic past is evident to those who live there, through material memorials in their midst, such as Winchester; but here in our new country we have few things to remind us of our foundations. So this may be an appropriate place to consider what we, in our existence in this land and in the amenities of life, owe to some bygone British enthusiasts who were able to influence their English contemporaries.

It would not be making an indefensible statement to claim that the colonization of Australia by British stock was due to a man who, from the time he first saw Australia to the end of his days, was an enthusiast about this new land. This enthusiasm he communicated in part to the British government and officials of his time. That man was Joseph Banks. Australia was bound to be discovered, explored and annexed by either Britain or France, the two great powers of that era of maritime adventure and rivalry which eventually saw Britain become the undisputed supreme power at sea. Banks must have been a man of outstanding personality, with remarkable powers of persuasion and a lively intelligence. He was born in 1743, and while he was still a boy he became interested by chance in what was to be his foremost and lifelong interest, botany. In due course he went to Oxford University; but when he found there were no lectures on botany, he and some fellow students, with botany interests, clubbed together and got from Cambridge Mr. Israel Lyons to instruct them. Mr. Lyons exemplifies the mixed interest of scientists of that time, for he is described as being "an Astronomer Botanist". Banks was left a fortune at eighteen by his father's death, and five years later, when he was already a Fellow of the Royal Society, he went on a botanizing expedition to Newfoundland. He soon began a lifelong friendship with Dr. Solander, about whom we read in Captain Cook's journal. Solander was a star pupil of the great botanist Linnæus. Banks, through his friendship with Lord Sandwich, then First Lord of the Admiralty, got permission to go with Captain Cook in the *Endeavour*, on the scientific expedition whose object was first to observe the transit of Venus on June 3, 1769, at Tahiti, and thence to sail to New Zealand and from there along the eastern coast of Australia. For the first time, the kangaroo was seen by white men. Banks became fascinated by the wealth of botanical discoveries he made when he landed on our shores at a place which later was appropriately named Botany Bay, a locality later to get a bad name in convict settlement days.

After a long voyage of three years, full of adventure, and through strange eastern waters, they returned to England, having lost many of their companions by scurvy and disease. It is easy to imagine how this voyage of discovery, with the sights of our unspoiled land and its strange fauna and flora, should have kindled an enthusiasm for Australia in this active-minded young Englishman—an enthusiasm which persisted throughout his long life. He became president of the Royal Society in 1778 and retained this office for 42 years, till he died at the age of 77. He was a wealthy patron of science, with many influential friends. It is interesting to modern Australians

that he was interested, like George III, in wool and sheep, specially the merino. He wrote a book on the merino in 1809. He was scientific adviser to George III, and was responsible for sending collectors abroad to get specimens; this had much to do with making Kew Gardens world famous.

For many years, it had been the custom for Britain to send some of her criminals to the American colonies to work there for the free colonists; but when these colonists revolted and became independent, this practice ceased, and the British gaols became overfull, despite the executions which were numerous for crimes now considered of little importance. So, as early as 1779, Banks reported to a committee of the House of Commons that Botany Bay was a suitable place to receive the overflow. He said it had a beautiful climate, and he thought that these former slum-dwellers would be given a chance to live healthy lives there and rehabilitate themselves physically and morally. A plea was also made to make this land an asylum for those American loyalists who were ruined by the War of Independence. To its shame, the British Government left them to fend for themselves in Canada and elsewhere. Banks's plan was accepted, but its carrying out was marred by the haste and incompetence of the Board of Admiralty.

He maintained, through the years, a lively interest in Australia and its settlement, and used his personal interest to help Governor Phillip, Governor Hunter, Governor King and Governor Bligh as much he could in their administrative difficulties in the early history of New South Wales. However, at that time, as in the late war, the British Government had quite naturally no vital interest in far-away Australia, when Britain was fighting for its own survival against a Europe united against her under the command of a dictator of great ability and energy, a military genius, Napoleon Bonaparte. Banks was able to communicate his enthusiasm for the settlement of Australia to influential members of the Government, and it was no fault of his that our early history is disgraced by evils which unnecessarily accompanied convict transportation and settlement. Such was our first mass immigration, an indirect result of a war, the War of American Independence.

In retrospect, no matter how strongly we may deplore the abdominations and callousness of many public officials and shipping contractors, who were responsible for convict deportation and settlement, we cannot deny that Banks's plan was sensible and humane and worthy of praise. When we read of the frightful conditions of the overcrowded British prisons of those days, of the harsh penalties inflicted for what we would regard now as hardly criminal acts, the idea of a new life in a delightful new country would be such as to induce him to use with enthusiasm his powers of persuasion on the aristocratic British ministers of his day and so accomplish two good things at the same time—to get rid of superabundant poor elements of the population and effectively forestall French colonization of the new continent.

Thus our first period of immigration of Britons in large numbers to this land was due mainly to the enthusiasm of a man of great personality and ability who had, in his young manhood, become entranced with all he had seen here.

Though free immigrants gradually arrived over the years and spread slowly, mainly in New South Wales, our second period of mass immigration was due to an infective enthusiasm which has recurred in many races, at many times, in many lands, in history. I am referring here to the enthusiasm of the pursuit of wealth by finding gold, an enthusiasm which spreads like an epidemic through thousands at a time. It has aptly been termed "gold fever", and when one reads of the doings of many diggers in our gold-rush days, one can only compare them with the acts of patients in febrile delirium. The story of the gold rushes to Ballarat and Bendigo which did so much to swell our population of adventurous free settlers needs no repetition here.

The Spanish colonization of the Americas was brought about by the same contagious enthusiasm or mania for getting rich quickly by finding gold.

In my boyhood I can remember the hard times when Victoria was still suffering from the frightful depression resulting from the bursting of the great land boom of the late eighties. Then men in Victoria began to hear of the discovery of gold at Coolgardie, and later at Kalgoorlie, in Western Australia. Quickly their despair and depression gave way to the gambler's hope of "striking it rich", and this enthusiasm to "go West" spread with tremendous rapidity. The coastal steamers were crowded with men of all trades and grades, rushing hopefully to make their fortunes on the goldfields. Many lost their lives from enteric fever, and some died of thirst in the desert; but many did well. The money they sent back to their families in the east did much to lessen the hardships of the depression, and Western Australia got an access of adventurous young men from the eastern States who were anything but popular with older Western Australians. The antagonism between "t'other siders" and "sand gropers" persisted for a long time, until a new mixed generation grew up.

The element of luck in gold rushes may have had some bearing on our Australian love of gambling in its many forms. The hope of gain without having to work too hard to achieve it is an ever-present feature in the community, and at irregular intervals the hope gives rise to an enthusiasm which spreads rapidly through all ranks, sometimes without any obvious cause, at other times with ostensibly adequate reasons. We have seen from time to time many such outbreaks. At present we seem to be in an epidemic of enthusiasm for more and bigger lotteries, there is our well-known annual "Cup Time" fever, and every now and then there is an insane and extensive enthusiasm for certain stocks on the stock exchange. However, these epidemics are generally not such as to reach the condition of being pandemic.

I suppose the great South Sea Bubble which involved Britain in the days of Walpole was one of the worst of such mad furies of speculation, and one of the most far-reaching in its social and political effects when the bubble burst. We in Victoria had a similar period of State-wide madness with grandiose delusions in the late eighties, which I have already referred to as the great land boom. It is hard to find out how or why this wave of enthusiasm started. There was a widespread air of prosperity in the colony; everyone predicted increasing prosperity and spread of population and business. The banks caught the enthusiasm, and advanced money on land and property that everyone was sure would increase in value. Grandiose building was the order of the day, both public and private. Mansions were built (some still standing and converted to other uses), with forty bedrooms for guests, with large ballrooms, conservatories and billiard rooms, and extensive gardens, carriage ways and stables and porters' lodges. Hotels many stories high were built in lonely paddocks, where their builders were certain there would soon be extensive suburbs. They were destined to remain for many years as monuments to public folly. The Government was so certain of the great potential productivity of Gippsland that they built three separate railway routes to cope with the expected traffic. Two of them quickly became derelict, and only parts have since seen limited use for suburban traffic.

The fever ended by crises. Some banks broke never to open again, others struggled through hard times to solvency; but there was widespread financial ruin and hardship. Men formerly in good positions found themselves penniless, and were glad to take on anything to get a living. I can remember as a boy seeing such men dressed shabbily in what had been good clothes, hawking rabbits and fish in the streets, canvassing and endeavouring in well-educated speech to sell soap or note-paper or such trivial things, in a weary door-to-door endeavour to scrape a few pence together. Of course, there was no Government unemployment fund or social services grant then, though an attempt in a limited way was made to give employment in road-making in what was then

unopened forest country. Everyone suffered, including the family of the subject of this address, and Sir Richard Stawell told me that, as a young physician, he had for some years a lean time.

With this widespread depression and the hope for better days, one can understand how the news of gold discoveries in Western Australia affected the younger, more physically active men. Their minds were ready for something which would fill them with enthusiasm, and they responded by mass emigration to the goldfields.

If gambling is one of the defects of Australian life, attributable in part to our early enthusiasm for gold rushes, some of the better features of our social existence may be attributed to two enthusiasts who lived long ago in England in the Victorian era. One was a pioneer in public health and the prevention of illness, and the other a pioneer in helping the sick to recover by proper nursing.

Many people of the present time thoughtlessly regard the Victorian era as at best a dull, humourless period, and at worst, a cruel heartless time, when making money was the sole enthusiasm, and no thought was given to alleviation of the tremendous, horrifying health and social problems accompanying and following the industrial revolution. The facts are that the Victorian era was a long era, and the very obvious evils and defects of the early period stimulated the beginning of health and social reforms. These have gone on ever since without ceasing, raising the standard of living and public health to a degree which must have seemed unattainable a century ago.

It was certainly an age which, like any other age, had its defects; but it was an age which produced many intellectual giants in our British history. It also produced some remarkable enthusiastic individuals with the outstanding ability to get their ideas adopted and put into practice by others. They were persistent enthusiasts, who convinced some of their associates of the rightness of their views; but they also had the capacity of getting the indifferent to take notice, and to overcome those who opposed them from sloth, from stupidity or from base selfish motives. One thinks of the many great social reformers of this era, such as Shaftesbury, Dickens, Owen, the early trade unionists and, at a later period, General Booth and his wife.

Out of many, two enthusiasts are worthy of special notice by medical men, for the effects they produced in the health and comfort of untold myriads since they first devoted themselves to their special interests. One was Edwin Chadwick and the other Florence Nightingale.

Edwin Chadwick was born in 1801 and lived till 1890. He was an Englishman of the Victorian era, whose deep and abiding interest in social, sanitary and political science stimulated others to join with him in his zealous campaigns to improve public health and prevent the pauperism which was such a disgrace to Britain in his young manhood. He was not a medical man, not a politician, not an engineer; he was a barrister. He was befriended by that peculiar reformer and philosopher of an earlier period, Jeremy Bentham, and became Secretary to the Poor Law Commission when he was about thirty. Reports arising from his first-hand observations, in this capacity, on the bad conditions in which the poor and labouring classes lived were the foundation later of various systems of government inspection. What he wrote and said moved the public conscience, and soon his enthusiasm gained him helpers in his cause. His ideas attracted public and parliamentary attention, and one consequence was a *Public Health Act* passed in 1848. This was the precursor of many subsequent enactments, all having the motive of preventing those conditions of living which hinder a population in its attainment of normal health. England led the world in the industrial revolution, and Englishmen led the world in their ideas for correcting the evils which arose from it at home and abroad. There can be no doubt that we moderns are indebted more than we know to Chadwick, and to the men who believed in him and worked with him. His importance in the history of sanitation and public health legislation has received tardy but growing recognition.

In strange contrast to the beneficence of his life work to his own and succeeding generations, he was lacking in personal appeal or any outward display of humanitarian sentiments. He was regarded as having "no heart", he was a bad public speaker and his writing had no charm. It has been said of him that he had less a passion for humanity than for administrative efficiency. He believed in the "Sanitary Idea", a determination to bring pure air and water and wholesome surroundings in home and factory in all ranks of society. As to his work in the slums, much of it must have been repulsive and prosaic; yet he could move otherwise conservative statesmen and members of the House of Commons to support him in his successful crusade. He was not interested in the medical profession generally. He seems to have persuaded himself that they would be unnecessary if he could get the nation converted to really wholesome living.

In the end, he and his board were prevented from continuing their work by opposition of slum property owners and others who were financially hurt by his public-health reforms. There is a modern ring about the charges brought against him and his board—we have heard them brought against enlightened and progressive public bodies in recent times. The board was said to be "aggressive", "dictatorial", and "peremptory", and he was branded as a "doctrinaire" and a "centralizer", and his methods were called "undemocratic". He retired from his public office, but maintained his enthusiasm for the "Sanitary Idea" and, though no longer in office, continued its advocacy as a private citizen.

Health act extensions and improvements still meet opposition from the conservative, the stupid and particularly those who from such measures are likely to suffer financial loss.

Everyone knows that modern nursing has evolved through the efforts of Florence Nightingale; but the popular image of her as the gentle creature who has gone down in history as "The Lady with the Lamp" is incomplete and inexact. She certainly had an intense enthusiasm for nursing—an enthusiasm which enabled her, a protected member of a comfortable Victorian family, to overcome that family's opposition to her taking up nursing, which was at that time an occupation held in low estimation and practised quite often by women given to alcohol and loose living. It was, as we know, the Crimean War which brought her activities to public notice. She must have had a wonderful capacity for infecting with her zeal and ideals others who would support her in her efforts for reform. One knows how hard it can be at the present time to get new ideas adopted in the services; but when we consider how the British army of those days was officered and administered, her success seems little short of miraculous. Much can be accomplished by a woman who understands the art of successful nagging. Of course, she had infected the soldiers and the public with her enthusiasm for army medical reform, and what she accomplished in a brief period is still something to marvel at. But her work did not finish with the Crimean War. For the rest of her long life she seemed to be an invalid, and it is interesting to speculate whether she really was a physical invalid or whether her disability was functional. However, there was never any doubt about the activity of her brain or the power of her personality. She was no mental invalid. She wore down cabinet ministers and administrators by her persistent requirements for improvements in civil nursing; she could cajole and castigate with equal facility and effect. To this day, the effects of her enthusiasm persist throughout the world in what she did for nursing as an art and profession.

The nurse and her duties have evolved very far from what Florence Nightingale envisaged. The important part played by the nurse in modern medical and surgical treatment, in public health and in industry is generally recognized. Florence Nightingale not only made nursing respectable, she made it a necessity of the higher civilization.

How is it that some propounders of new ideas attract supporters and others have no such influence?

One can understand the success of the fiery Mahomet and his immediate followers, or of Saint Paul with his burning zeal and amazing energy; yet by contrast we have the calm and peaceful Buddha founding one of the great world religions, and Gandhi, the non-violent advocate of Indian independence, who had millions of devoted followers. Indian independence had to come; but Gandhi more than any other man caused it to come about when it did. Or again, what a contrast in two former leaders for Irish independence—Daniel O'Connell, dramatic and oratorical, Parnell, deadly earnest and efficient, but to his colleagues as cold as O'Connell was warm! Chadwick seems to have been devoid of charm or oratory or personal grace; in fact he seems to have been almost repellent to most of his contemporaries; yet he got their support and convinced them.

There seems to be no characteristic common to these men and women who so influence others for good or bad. The nearest generalization I can make is that each of them is characterized by a continuous earnestness, combined with acceptable apparent or real knowledge of the matter about which he is so very earnest. By "acceptable", I mean that his audience accepts him as one speaking with authority on his theme.

In the early part of this oration I spoke about Richard Stawell as I first knew him when I was a young student and young graduate, of his personality, of his characteristics and some of his attainments, of the conditions in which he taught, and of some of his professional friends, who also exerted a great influence in clinical teaching in Melbourne. Above all, I stressed his earnest enthusiasm, which he communicated to his students. Later I indulged in thoughts about this interesting phenomenon of the contagion of enthusiasm, both for good and for evil, from individuals or groups, and about how some of these enthusiasms have in past history produced effects which we feel, but do not always recognize, in our lives in Australia today.

To return to the more restricted field of modern medical teaching, what is the scope of a clinical teacher today? Can he inspire his students as Stawell did? Or is his student audience more responsive to enthusiasms other than clinical? The world has changed tremendously since Stawell was our leading physician, and the world of medicine has participated in that change. It has changed more in ten years than in the preceding twenty years, and more in that twenty years than in the preceding two hundred years. This can be seen reflected in the Melbourne Hospital patients' medical records of 1910 and 1960. You will find in the former a history of the patient's malady as related by himself, copious records of physical signs often remarkably accurate and recorded day by day in their alterations. These show the results of close observation of the patient, and of long and careful training by clinical teachers in the eliciting of these signs. From these a diagnosis is recorded, not always as accurate and precise as is possible now. Then follows the prescription of treatment, the best then known or available, including long prescriptions for medicinal mixtures of drugs often of a herbal nature now obsolete.

In contrast, the present record starts off with a history, generally brief, some notes on clinical examination (often contracted to a set of capital letters understandable only by the initiated), and pages and pages of laboratory reports of tests and examinations unknown in Stawell's time. Then follow the diagnosis, generally correct and exact, and the treatment, precise and rational, employing synthetic drugs, antibiotics and perhaps accurate amounts of the active principles of some of the older vegetable drugs such as opium, digitalis and belladonna.

In brief, the physician has become more scientific. In Stawell's day we spoke of the physician's art in the practice of medicine, rarely of his "science"—using that term in its modern restricted sense. However, the scientific information about a patient has not yet reached a stage at which a number of punched cards recording scientific information about the patient can be put into a machine which will turn out a result giving the diagnosis and treatment. But chemistry and physics enter so greatly into diagnosis and treatment that there is a risk of the student's not realizing that all this scientific knowledge applies, not to a laboratory animal, but to that complex of body, mind and soul which constitutes a human being, and furthermore, that a sick human being is something profoundly different from the same human being in his ordinary health, still requiring from the physician those attributes which have for ages given him his honourable status of trust and respect, and frequently of a friend worthy of affection.

Students now can have their interest roused by physicians enthusiastically teaching them about various impersonal things, such as electrolyte imbalance, encephalograms, electrocardiograms, or some of the many physical and chemical records showing evidence of abnormality in patients; but the really inspiring teacher is still a man of character and personality, who directs their attention first to the physical and mental signs of illness, and then has the scientific knowledge to ask the proper questions of the physicist and biochemist which enable him to know all that should be known about his patient.

Truly the modern physician must have a store of scientific knowledge of amazing extent; but the greatest teacher among them must also have, in addition, that wonderful gift possessed by Stawell in his prime—the power of "infectious enthusiasm".

SOME ASPECTS OF ALCOHOL IN BODY FLUIDS: PART III. STUDY OF ALCOHOL IN BLOOD IN DIFFERENT PARTS OF THE BODY.

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ATTENTION has been drawn recently to the observation that in post-mortem material blood alcohol concentrations may differ in different parts of the body and that these variations may be of a significant magnitude. While these have been described in cadaver blood, there is relatively little information in the literature regarding the possible existence of such variations in the living body after alcohol has been consumed.

Since chemical tests for alcohol in blood are becoming increasingly important in cases of driving under the influence of alcohol, it was decided to investigate whether any significant differences exist in alcohol concentrations found in blood drawn simultaneously from different parts of the body. Blood samples are taken as a routine from the cubital vein in these cases, and this was therefore chosen as one of the sites in this work. The other sample was taken from a suitable vein in the opposite foot, this being the most distant peripheral source of blood.

Experimental Investigation.

Twenty-seven different subjects consumed beer (5% alcohol v/v) over periods varying from one to two hours. The subjects were allowed to select their own rate of drinking, but a fast rate was strongly discouraged. In all, these 27 subjects provided 40 tests.

At selected times after the completion of drinking, two blood samples were withdrawn simultaneously from the subjects. One sample was withdrawn from the cubital vein at the elbow and the other from a suitable vein in the opposite foot. Blood samples were withdrawn from some subjects within a few minutes of the end of their drinking, whilst others were held for longer and varying periods (up to four hours) before the blood samples were taken. In this way it was possible to

compare the blood alcohol concentration at these two sites during the time when first there was a relatively rapid rise in blood alcohol concentration, and when secondly the alcohol concentration was near or past the maximum in the blood. Some of the subjects offered samples both soon after their drinking finished and again at the later time. As a guide, the alcohol concentration was checked periodically by the "Breathalyzer". The blood samples were analysed by the method of Kozelka and Hine (1941).

TABLE I.

Comparison between the Blood Alcohol Concentration Found Simultaneously in Arm and Foot.

Subject Number.	A.[1]	t_1 (min.).[2]	*Ca*.[3]	*Cf*.[4]	Δ.[5]	t_2 (min.).[6]
117	16	131	0·185%	0·120%	Average	5
			0·188 (duplicate)	0·120 (duplicate)	0·066%	
126	14	120	0·129	0·086	0·043	20
101	16	107	0·137	0·101	Average	8
			0·135 (duplicate)	0·106 (duplicate)	0·033	
123	15	150	0·158	0·125	0·033	12
114	17	140	0·180	0·152	0·028	5
124	14	120	0·097	0·069	0·028	13
111	12	100	0·135	0·110	0·025	27
116	11	126	0·096	0·074	0·022	4
109	12	100	0·122	0·103	0·019	44
115	17	141	0·179	0·162	0·017	9
121	15	150	0·137	0·121	0·016	32
125	14	120	0·150	0·134	0·016	48
107	9	100	0·080	0·068	0·012	48
119	6	118	0·068	0·057	0·011	5
102	12	105	0·115	0·107	0·008	16
104	14	103	0·150	0·142	0·008	61
110	23	107	0·206	0·200		194
116	11	126	0·074	0·068		186
122	15	150	0·113	0·107		37
113	6	100	0·036	0·031		15
117	16	131	0·151	0·146		134
101[7]	16	107				
	8	81	0·187	0·183		52
			0·187	0·185		57
103	8	90	0·049	0·051		225
105	8	92	0·051	0·051		224
106	12	105	0·048	0·052		182
108	11	107	0·069	0·068		236
109	12	100				
	6	54	0·145	0·142		52
114	17	140	0·164	0·167		133
115	17	141	0·137	0·139		137
118	12	116	0·159	0·161		3
118	12	116	0·114	0·114		136
119	6	118	0·048	0·052		137
120	19	108	0·185	0·183		42
120	19	108	0·168	0·165		159
121	15	150	0·124	0·121		88
122	15	150	0·107	0·106		91
123	15	150	0·145	0·144		85
127	11	130	0·083	0·080		86
128	10	120	0·091	0·088		101

[1] Number of seven-ounce glasses of beer consumed.

[2] Period of drinking (minutes).

[3] Alcohol concentration in blood sample from the cubital vein (grammes of alcohol per 100 ml. of blood).

[4] Alcohol concentration in blood sample from foot.

[5] Difference between alcohol concentration in blood from cubital vein and foot—$\Delta = Ca - Cf$. Values for Δ of 0·006% and below are regarded as insignificant and have not been recorded.

[6] Period between completion of drinking and withdrawal of blood sample (minutes).

[7] Blood was withdrawn from subject 101 from both arms and both feet after the second drinking period.

Discussion.

Examination of Table I shows that when the period between the last drink and the withdrawal of the blood (t_2) exceeds an hour, there is no difference, within experimental error, between the blood alcohol concentration of the arm and that of the foot. Breath tests showed that, within the hour, the maximum alcohol concentration had been reached.

However, when t_2 is less than an hour, there is usually a difference in the alcohol concentration in these two sites. Thus, in these cases, Δ has been found to vary from zero to 0·066%. It will also be observed that this difference, when it occurs, is always in the same direction, the alcohol concentration in the blood of the arm being greater than in that of the foot.

It appears certain from Table I that this difference occurs during the period of relatively rapid absorption from the alimentary canal, and it disappears when the subjects have attained their maximum alcohol concentration in the blood.

In a previous paper on this subject (McCallum and Scroggie, 1959) it was stated that the information to be derived from the analysis of a blood sample for alcohol was two-fold: (i) that alcohol is, or is not, present in the sample; (ii) that, from the amount of alcohol found by analysis the minimum amount of alcohol which would normally be consumed to reach this concentration can be calculated.

This is the way in which the blood test is now used under Victorian legislation, and the present findings in no way invalidate the use of the test for providing this information in the living person. In cases of suspect "driving under the influence", blood samples are taken from the cubital vein. Hence, in this and in previous works (Bayly and McCallum, 1959; Bayly, McCallum and Preston, 1960), analysis of blood samples from the cubital vein has been used as the standard. For example, the interpreting figure used to obtain the minimum alcohol consumption was reached by a comparison of the amount consumed with the maximum alcohol concentration found in this vein. In a similar manner, the accuracy of the "Breathalyzer" was determined by analysis of blood samples taken from the cubital vein.

Summary.

In the living body, blood samples obtained simultaneously from arm and leg from subjects who have ingested alcohol usually show a higher reading in the blood from the arm for periods up to an hour after ingestion. After an hour, the two samples show substantially the same alcohol concentration.

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ANTIHISTAMINES AND THE CALCIUM CARBIMIDE-ALCOHOL REACTION.

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ALTHOUGH the role of any "protective drug" in the treatment of alcoholism is likely to be very limited, the search for the ideal drug continues. As was pointed out by Smith *et alii* (1957), such a drug would produce neither addiction nor habituation, could be given safely over a prolonged period, and would create an unpleasant but not harmful reaction if alcohol was taken. The first two of these criteria may be achieved, but the latter may be

TABLE I.

Observations at the Stated Time Intervals on 49 Subjects (45 Men and 4 Women) Receiving C.C.C. (100 mg.) followed One Hour Later by Brandy (2 oz.).

Reaction.	15 Minutes.				25 Minutes.				35 Minutes.				45 Minutes.			
	Nil.	Slight.	Moderate.	Severe.	Nil.	Slight.	Moderate.	Severe.	Nil.	Slight.	Moderate.	Severe.	Nil.	Slight.	Moderate.	Severe.
Flushing	9	23	11	6	8	20	15	6	8	18	17	6	8	28	10	3
Palpitations	20	26	3	—	14	30	5	—	17	27	5	—	18	28	3	—
Nausea	49	—	—	—	49	—	—	—	46	—	3	—	46	—	3	—
Vomiting	49	—	—	—	49	—	—	—	49	—	—	—	48	—	1	—
Headache	43	6	—	—	43	3	3	—	43	3	3	—	43	3	3	—
Lachrymation	16	24	9	—	14	26	9	—	12	28	9	—	15	27	7	—
Constricted feeling in chest	34	11	4	—	24	16	9	—	38	8	3	—	40	6	3	—
Difficult breathing	45	4	—	—	45	4	—	—	46	3	—	—	47	2	—	—
Choking feeling	49	—	—	—	47	2	—	—	47	2	—	—	48	1	—	—
Sleepiness	49	—	—	—	43	6	—	—	29	12	8	—	14	15	16	4
Dizziness	45	4	—	—	35	10	4	—	24	15	6	4	28	13	4	4
Average fall of blood pressure from basal level (mm. of mercury):																
Systolic		22				24				21				12		
Diastolic		30				33				28				16		
Average rise in pulse rate from basal level (per minute)		42				40				32				26		

an impossible goal. Nevertheless, any measures that will increase the safety of the alcohol reaction will make these drugs potentially more valuable.

One of the latest drugs in this field is citrated calcium carbimide (C.C.C.). This drug interferes with the oxidation of alcohol, and acetaldehyde, an intermediate product, accumulates in the blood. Therefore, although it is unlike disulfiram in chemical structure, the end result is still the same (Ferguson, 1956).

It is apparently assumed that the acetaldehyde exerts its effects at least partly by a histamine effect. Thus it is reported by Sargant and Slater (1954) that a dose of 25 mg. of promethazine counteracts undesirable histaminic-like cardio-vascular effects and it has a valuable sedative action. Smith *et alii* (1957) state that an antihistamine (name and dose not given) was administered at the height of nine C.C.C.-alcohol reactions. They stated that in all nine patients the dyspnœa, tightness in the chest and pruritus were immediately relieved. Minto and Roberts (1960) attempted to assess the value of antihistamine therapy in modifying the C.C.C.-alcohol reaction in 15 cases. They were much more cautious in their appraisal. The substance used was mepyzamine maleate ("Anthisan") given intravenously in a dose of 0·05 gramme. They found that the use of "Anthisan" did not appear to shorten the duration of flushing, urticaria or conjunctival injection and did little to modify headache. On the other hand, tightness and pain in the chest were rapidly eased, with return of pulse rate and blood pressure to normal values. They also thought that the drug relieved apprehension and anxiety.

As investigations had been carried out at this hospital into the pattern of response following the C.C.C.-alcohol reaction, the opportunity was taken to see whether this pattern could in fact be altered by promethazine given intravenously.

Investigation.

Details of how the patterns shown in Table I were obtained have been described in an earlier report (Collins and Brown, 1960). Further investigations, in which the dose of C.C.C. was increased to 200 and 300 mg., confirmed the over-all picture. Increasing the amount of brandy to six ounces, even when the dose of C.C.C. was reduced to 50 mg., produced some unexpectedly severe reactions; but once again there were the same types of signs and symptoms and order of appearance.

It will be seen from Table I that most signs and symptoms are almost at their maximum in 15 minutes, and that there is only a slight increase from 15 minutes to 35 minutes.

It was, therefore, decided to try the effect of giving 25 mg. of promethazine intravenously 20 minutes after the administration of alcohol in the otherwise standard test. It was thought that, if the antihistamine was of any value, there would have to be either a decrease or no change in the intensity of the recordings between 15 and 35 minutes. The interval of 20 minutes was chosen because

TABLE II.

Observations at the Stated Time Intervals on 20 Subjects Receiving C.C.C. (100 mg.) followed One Hour Later by Brandy (2 oz.); Promethazine (25 mg.) given Intravenously at 20 Minutes.

Reaction.	15 Minutes.				35 Minutes.			
	Nil.	Slight.	Moderate.	Severe.	Nil.	Slight.	Moderate.	Severe.
Flushing	—	4	8	8	—	4	6	10
Palpitations	2	5	7	6	1	3	8	8
Constricted feeling in chest	2	12	4	2	5	14	1	—
Difficult breathing	8	8	4	—	10	7	3	—
Choking feeling	16	4	—	—	18	2	—	—
Sleepiness	6	13	1	—	—	8	7	5
Dizziness	12	5	3	—	8	9	3	—
Average fall of blood pressure from basal level (mm. of mercury):								
Systolic	28					33		
Diastolic	34					40		
Average rise in pulse rate from basal level (per minute)		50				61		

this is about the minimum time in which a doctor unprepared for the emergency could administer the drug. In any case, it would have been difficult to draw any conclusions beyond 35 minutes, as the effects then begin to wane spontaneously.

Twenty patients who had had moderate or severe reactions were chosen as the subjects. No opportunity to try the drug outside the experimental situation presented itself. Only those signs and symptoms that had proved troublesome in the initial test were assessed. For that reason, headache, nausea and vomiting were eliminated. Lachrymation is a troublesome effect, but it is difficult to measure, so that it was not recorded.

Table II shows the observations on 20 patients sensitized by taking 100 mg. of C.C.C. an hour prior to the test: (*a*) 15 minutes after taking 2 oz. of brandy, (*b*) 35 minutes after taking 2 oz. of brandy.

Each patient received 25 mg. of promethazine intravenously 20 minutes after taking the alcohol. It will be seen that there was no relief from flushing and palpitations—in fact, there was a slight increase. There was a reduction in the incidence of distressed breathing, but the effects of suggestion may have produced this result. Sleepiness became much more pronounced. Unfortunately, pruritus was not originally recorded, but it is a feature of the C.C.C.-alcohol reaction. In general, patients did feel that the antihistamine relieved this, but not entirely. It is therefore surprising that the more objective effect of flushing was not relieved, as one would think that this was a histamine response as well. As Minto and Roberts recorded, anxiety and apprehension were often relieved; but this effect could not be measured, and in any case was probably only a product of suggestion. Both the systolic and diastolic blood pressures fell further, and the pulse rates rose.

The results were on the whole disappointing. The continued fall in blood pressure was at times rather alarming. The increased sleepiness is quite understandable, as this is an effect of an antihistamine. Many patients fell into a long, deep sleep. The sedative effect may have some value, but there was no over-all feeling that the injection had lessened the severity of the responses as compared with the original standard test. It was not thought advisable to give more than 25 mg. of promethazine intravenously. The effects of the oral administration of the drug were not considered. It should be pointed out that both Table I and Table II are drawn on group results, and there is considerable individual variation in response. It is, therefore, possible for an individual patient apparently to gain some benefit from the injection.

Discussion.

Our findings do not suggest that promethazine given intravenously is of any substantial value in relieving the symptoms of a severe C.C.C.-alcohol reaction. Risks should not be taken with this drug on the grounds that an intravenous injection of promethazine will relieve any untoward effects. In point of fact, the promethazine introduced some undesirable side effects of its own.

An injection of an antihistamine should not be given if the blood pressure is already low. In small dosage, it may be of limited value for the anxious patient who complains of tightness in the chest, or to relieve severe pruritus. However, pruritus is not a dangerous symptom, and one of the criteria of a protective drug is to produce an unpleasant, but not harmful, reaction with alcohol. The most alarming feature of a severe reaction is the blood-pressure drop, and there is no theoretical reason why an antihistamine given intravenously should relieve this.

As the result of our earlier experiments with large doses of alcohol, it was decided that if the drug was used extensively, severe reactions could usually result from indiscretions in the amount of alcohol consumed. It must be conceded that antihistamines given intravenously might have greater value in these severe emergencies, but one would expect some observable improvement in the less severe reactions.

The C.C.C.-alcohol reaction is probably not a pure histamine response. There may be an altered vascular response that can only be righted spontaneously. There is evidence that the sensitizing drugs not only cause an accumulation of acetaldehyde, but also alter the vascular reaction to alcohol (Ferguson, 1956).

It is perhaps unfortunate that we did not choose the same antihistamine as Minto and Roberts (1960). However, we are doubtful whether this could account for the disparity of the results concerning the blood pressure. In earlier experiments, a dose of 50 mg. of "Avil" (1-phenyl-1-pyridyl-(2)-3-dimethyl-aminopropane) was given intravenously at the height of the reaction to three subjects. At that time no records were made, but there was no apparent difference from the effects of promethazine.

Summary.

1. Promethazine given intravenously does not appear to increase the safety of the C.C.C.-alcohol reaction, although it relieves certain of the symptoms.

2. Alterations in the pattern of the C.C.C.-alcohol reaction following promethazine given intravenously are described and discussed.

Acknowledgements.

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A STUDY OF SUBDURAL HÆMATOMA.

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THIS study of 64 consecutive cases of subdural hæmatoma was undertaken in an attempt to understand the distinction between two types of subdural blood collections as found at operation, and to indicate how each group, though often similar in clinical presentation, is different in significance and prognosis.

Our knowledge of the ætiology of subdural hæmatoma dates from a paper by Wilfred Trotter (1914), when he paralleled four patients with chronic subdural hæmatoma, whose symptoms could be traced back to definite head injury, with cases of "pachymeningitis" described by Oppenheim in the previous year. The term "pachymeningitis hæmorrhagica interna" was used in 1857 by Virchow, who postulated an inflammatory basis, for subdural encapsulated collections of fluid blood. The rather different collections of clotted subdural blood occurring as a complication of head injury were described in the last century, and were not at the time linked with the so-called pachymeningitis. However, when the traumatic nature of the fluid hæmatomas was established by Trotter, an attempt was made to identify them with the clotted hæmorrhages on a basis of the time elapsing between injury and the discovery of the collection.

Timothy Leary, in 1934, described the post-mortem findings in 50 cases of subdural hæmatoma, and concluded that soon after injury collections of blood were clotted and later became fluid, and encapsulated. Echlin, in 1949, similarly regarded the liquefaction as a feature determined by the maturity of the hæmatoma. He based his paper on findings at operation.

The view became general that the collections of fluid altered blood enclosed in thin membrane were old-standing

TABLE I.
The Whole Series.

Time between Injury and Operation.	Number of Cases.	Range of Age.	Deaths.
One day or less ..	18	17 months to 67 years	15
One week or less ..	10	10 years to 54 years	4
One week to two weeks	19	22 years to 71 years	4
Two weeks to three weeks	6	26 years to 77 years	1
Three weeks to four weeks	2	38 years to 46 years	0
Four weeks to five weeks	0		
Over five weeks ..	5	22 years to 57 years	1
No history of injury ..	4	46 years to 61 years	0
Total	64		25

or chronic, and that those of the clotted variety were either acute or subacute.

Trumble (1947) supported the theory of Hannah that the fluid collections were a separate entity, and were intradural collections formed in the delicate vascular layer between the innermost thin fibrous layer and the thicker fibrous layers of the dural membrane. His chief

TABLE II.
The Fluid Collections: "Chronic Subdural Hæmatoma".

Time between Injury and Operation.	Number of Cases.	Range of Age. (Years.)	Deaths.
One day or less	0	—	—
One week or less	1 (5 days)	37	0
One week to two weeks	12	22–71	2
Two weeks to three weeks ..	2	26–67	0
Three weeks to four weeks ..	1	46	0
Four weeks to five weeks	0	—	—
Over five weeks	5	22–57	1
No history of injury	3	46–61	0
Total	24		3

argument was that an inner limiting membrane formed of cells indistinguishable from those of the inner layer of *dura mater* could not have formed in the short time since injury, and that he had observed small satellite collections of blood in the dura beyond the limits of the hæmatoma. In addition, he remarked on the fact that the fluid hæmatoma was situated over the convexity, whilst other hæmatomas gravitated to the middle fossa.

We are of the opinion that the fluid and clotted collections are separate entities; the fluid collections are primarily and solely subdural in origin, but the clotted collections are the result of cerebral laceration causing bleeding into the subarachnoid space and through a tear into the subdural space. The clotted blood in the course of time will partly liquefy, and the outer layers of blood may eventually resemble a membrane, but the fluid subdural hæmatoma is fluid from the beginning.

Clinical Findings.

There is no marked difference between the clinical findings in the two groups, and these are considered together.

Disturbance of Consciousness.

Some disturbance of consciousness was present in 58 of the 64 cases, and they are grouped as follows according to the nature of this disturbance.

1. Unconsciousness from the moment of injury. Twelve patients did not regain consciousness from the time of injury. Operation was indicated because of progressive deepening of the stupor or the development of signs such as pupillary changes or hemiparesis.

TABLE III.
Clotted Hæmorrhage.

Time between Injury and Operation.	Number of Cases.	Range of Age.	Deaths.
One day or less ..	18	17 months to 67 years	15
One week or less ..	9	10 years to 54 years	4
One week to two weeks	7	22 years to 69 years	2
Two weeks to three weeks	4	39 years to 77 years	1
Three weeks to four weeks	1	38 years	0
Four weeks to five weeks	—	—	—
Over five weeks ..	—	—	—
No history of injury ..	1	54 years	0
Total	40		22

2. Loss of consciousness after a lucid interval. Eighteen cases fell into this group; five patients lost consciousness abruptly and a "stroke" was suspected.

3. Waxing and waning of consciousness. This is the disturbance classically associated with subdural hæmatoma; 11 cases presented in this way. The patient may lapse into deep coma and within minutes become fully conscious again.

4. Drowsiness and confusion. Apart from the alterations in consciousness mentioned above, a further 17 patients were drowsy or confused at the time of examination.

TABLE IV.
Evidence of External Trauma in the 24 Cases of Fluid Collections.

Site.	Number of Cases.
Anterior	4
Occipital	1
Lateral	2
No sign of trauma	17

In six cases there was no disturbance of consciousness, but subdural hæmatoma was suspected because of severe headache, hemiparesis or pupillary changes, and in one case because of the development of fits.

Headache.

Headache was a presenting symptom in 33 of the 36 patients sufficiently conscious to complain. In the remaining cases no reference to headache was made in the notes, and it is possible that this was an omission. There is no doubt that the commonest presenting symptom of a chronic subdural hæmatoma is headache.

Epilepsy.

Ten patients developed generalized or focal epilepsy. Seven had seizures indicating the side of the hæmatoma.

Diplopia and Ptosis.

Two patients complained of double vision. One developed an oculomotor nerve palsy.

Uncommon Symptoms.

Giddiness, nausea and vomiting associated with headache were noted in a few cases. One patient complained of slowness of speech, another developed a dragging foot.

Clinical Examination.

Neck stiffness was recorded in 17 cases, but it is our impression that this is a more common finding. Aphasia was noted in six cases; in some of these it was the only lateralizing feature. Papilloedema was present in 11 cases; the earliest was noted five days after the injury.

Ocular Palsies.

Thirty-six patients showed pupillary changes; a few had in addition external strabismus. As a rule the dilated pupil was on the side of the hæmatoma, but in two cases

TABLE V.

Evidence of External Trauma in the 40 Cases of Clotted Hæmorrhage.

Site.	Number of Cases.
Anterior	13
Occipital	7
Lateral	15
No sign of trauma	5

a dilated pupil with loss of reaction to light was present on the side opposite to the hæmatoma—a phenomenon which is difficult to explain, but which has been recorded by other observers.

There was oculomotor nerve paralysis in several patients with paralysis of pupil reaction, but in three patients with complete paralysis of extrinsic muscles supplied by the third nerve the pupil retained its normal light reaction. In cerebral compression it is more typical for loss of reaction to light to precede other signs. The third nerve was the only oculomotor nerve to be affected in this series.

TABLE VI.

Clinical Findings in the 24 Cases of Fluid Collections.

Signs.	Number of Cases.
Neck stiffness	9
Aphasia	1
Papilloedema	9
Pupillary changes	7
Hemiparesis	7
Weakness of lower half of face only	2
Extensor plantar responses (unilateral or bilateral)	13
Slowing of the pulse rate (below 60 per minute)	8
No physical signs	4

Pyramidal Signs.

Forty-seven patients showed some sign of involvement of the pyramidal tracts. In 25 the signs were contralateral to the hæmatoma, but in 11 they were ipsilateral. This is probably due to the dislocation of the brain-stem away from the hæmatoma, so that the cerebral peduncle is compressed against the edge of the tentorium cerebelli.

Lumbar Puncture.

Lumbar puncture was performed on 28 patients. Low-pressure reading was obtained in two cases.

The fluid was blood-stained in six cases and the supernatant fluid was "xanthochromic" in 12. A raised protein content was noted in six cases; the highest figure was 180 mg. per 100 ml.

It appears, therefore, that lumbar puncture cannot provide any reliable guide to the presence of subdural hæmatoma, and is not without the risk of precipitating a medullary cone. It is therefore not recommended in a suspected case.

Summary of Clinical Features.

Tables VI and VII summarize the clinical findings in the two groups and indicate that the signs are less florid in the fluid group. It is evident that a history of injury is not necessary for the diagnosis. The most constant symptom of subdural collection is headache. Disturbance of consciousness or confusion was present in all but six of the series. Epileptic fits were a presenting feature in a small number of cases. Clinical examination may yield little information, apart from confirming the disturbance of consciousness. In any case of stupor or coma in which the cause is not obvious, subdural hæmatoma must be suspected, and when possible cerebral angiography is a simple means of verifying or disproving this diagnosis. At the other end of the scale, the signs may be so gross that a cerebral vascular accident or tumour can be suspected, and a subdural hæmatoma unexpectedly discovered only when burr holes are made for ventriculography.

This extreme variability of the clinical picture must be recognized, and it cannot be too strongly urged that any case of unexplained coma must be investigated by angiography, or when this is not convenient, by diagnostic burr holes.

TABLE VII.

Clinical Findings in the 40 Cases of Clotted Hæmorrhage.

Signs.	Number of Cases.
Neck stiffness	8
Aphasia	3
Papilloedema	2
Pupillary changes	29
Hemiparesis	15
Weakness of lower half of face only	2
Extensor plantar responses (unilateral or bilateral)	23
Slowing of the pulse rate (below 60 per minute)	2
No physical signs	1

Operative Findings.

On the basis of operative findings this series is divisible into two groups, as follows.

1. The "fluid" group of hæmatomas were the same whether operated on five days or five weeks after the injury. These collections can be struck anywhere over the hemisphere. Beneath the dura a membrane of grey-green colour required separate incision and enclosed fluid of chocolate-brown colour. This collection could be evacuated through burr holes.

2. The "clotted" variety, on the other hand, presented as blood and clots chiefly collected around the lateral aspect of the temporal lobe in the middle cranial fossa. In the early cases the blood was recent, and underlying laceration of the tip of the temporal lobe could often be seen. In later cases the process of organization and liquefaction of the clot was seen, the outer layer of clot becoming organized and tough and resembling a membrane which is thick and shaggy, compared to the fine membrane of the other variety. Enlargement of the burr hole was necessary in most cases in order to deliver the mass of clots.

Comparison of the clinical features of these two groups is made in the following tables. Tables I, II and III concern the time elapsing between injury and operation, the range of age and the mortality of the whole series and the separate groups. It can be seen that fluid collections, "chronic subdural hæmatomas", have been found as early as five days after injury, and a clotted collection as late as the fourth week. The striking difference in the mortality of the two groups is evident. In the fluid hæmatoma group three deaths occurred; of these patients two were found at autopsy to have large hæmatomas reformed on the side originally drained, and must be regarded as inadequately treated. The range of age for each type of collection indicates that fluid hæmatoma can occur in young as well as in older patients. The greatest mortality was seen in the clotted hæmorrhage group who were operated on within the first 24 hours. In these, the subdural hæmatoma was a complication of generalized brain damage.

In Tables IV and V it is noted that only 17 of 24 patients had any history or evidence of trauma, which is often too trivial to be remembered. In this group, seven of the 24 patients lost consciousness at the time of injury, whereas 30 of the 40 patients with clotted hæmorrhage suffered a primary concussion. It appears that, as a rule, a more violent type of injury is responsible for the subdural clots.

Results.

The high mortality among patients operated on in the first 24 hours is to be noted. They all had frank hæmorrhage. Operation in this period becomes a diagnostic measure, mainly to exclude extradural hæmorrhage.

The smaller mortality among the patients with fluid collections has been mentioned. Residual defects in the group with clotted hæmorrhage were greater. Of the 18 survivors of this group, 12 left hospital with some residual disability such as hemiparesis or mental change or dysphasia, whereas in the fluid hæmorrhage group only four were left with any disability at the time of their discharge from hospital.

Summary.

A consecutive series of 64 cases of subdural hæmatomas has been studied. It is apparent that these fall into two distinct pathological entities, and we have found no evidence of a link between them. These two entities are characterized by some distinctions in their clinical features, in management and in prognosis, as follows:

1. The classical chronic subdural hæmatoma, consisting of a fluid collection enclosed in a membrane, is of doubtful origin. Definite history of trauma is often wanting. The signs are apt to be less florid, and treatment and prognosis more satisfactory, than in the other case.

2. Subdural clots are the result of severe trauma, with brain laceration and primary hæmorrhage into the subarachnoid space. Though outer organization and central liquefaction of the clot occur, there is no typical membrane formation. The mortality is higher and residual disability more frequent.

Acknowledgement.

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Reviews.

The Heart in Industry. By Twenty-Four Authors, edited by Leon J. Warshaw, M.D., F.A.C.P.; 1960. New York: Paul B. Hoeber. 9¼" × 6", pp. 704. Price: $16.00.

THIS book deals with the various aspects of the subject, each chapter being written by an expert well experienced in his particular branch. Physiological, pathological, psychological and mechanical factors affecting cardiac function are discussed in detail. The increased incidence of cardio-vascular disease, real or apparent, is discussed, and means by which this great potential work force can be used to the best advantage are advanced. Two very important points are made: (i) the value to employee and employer of the industrial medical officer; (ii) the extreme importance of the closest collaboration between him and the private practitioner.

The importance of training and returning a man to a job with which he is familiar is stressed. The study of the effects of physical exertion, mental stress, trauma, occupational lung disease, etc., on heart disease leads on to the problem the cardiac worker presents to the employer. He is capable of doing useful work if properly placed, and quite frequently proves to be a conscientious and valuable employee. The industrial medical officer can be of immense service by early detection of cardiac damage, by suitable placement of employees, and by pointing out to the employer any removable health hazards. He can encourage the cardiac employee and guide him in his way of working, supervise his progress and note his response to exertion, etc. This ties up with rehabilitation, which is discussed in detail. It is shown that a large proportion of coronary patients can return to their jobs, while a small residue are fit for work in sheltered shops only.

A discussion on workmen's compensation discloses various angles which will be of great value to a referee. The need for education of both worker and employer is stressed, as is the value of the explanation by the industrial medical officer to the private practitioner of the stresses in various jobs. This book discusses the pertinent points relative to effort and risks associated with driving vehicles, flying, farming, etc. It is a very valuable and interesting reference book for any medical practitioner handling workers, and especially for the medical referee. For industrial medical officers, whose numbers are at present quite inadequate, it is a vade-mecum.

Practical Clinical Management of Electrolyte Disorders. By William J. Grace; 1960. New York: Appleton-Century-Crofts, Inc. 8" × 5¼", pp. 144. Price: not stated.

IT is an eloquent commentary on the difficulties experienced by the present generation of practising doctors in understanding and dealing with electrolyte disorders that there should be so many books appearing on the subject. This one is another. It is a small book with a hard cover, loosely printed, with electrocardiograms and other illustrations, tables, formulæ, references and index. Its 10 chapters are mostly along the lines of "What happens in vomiting or prolonged gastric suction: alkalosis", or heart failure, renal disease, uncontrolled diabetes and so on. Case reports are used freely, and then comments are made on the underlying principles of the disorder and its treatment. Quite specific directions are given about treatment, together with rules of thumb for determining the amounts of solutions required. At least two of these are wrong — both sodium and potassium replacement should be based on the total body water volume, and not on the extracellular fluid. The book has its merits in being small, readable and simple, and will appeal to those who are taking their first steps in this field and who like to hitch their thinking to case reports. However, in general, it seems to have been pruned too much, and there are better books available.

Notes on Books.

A Pocket Book of Proprietary Drugs. Compiled by Alistair G. Cruikshank, F.R.C.P.E., and Cornelius Stewart, L.R.C.P. & S.E., M.P.S.; 1959. Edinburgh and London: E. & S. Livingstone Limited. 6" × 6¼", pp. 236. Price: 10s. 6d. (English).

POCKET BOOKS come in many sizes, but this one is true to its name and could fit conveniently into any man-sized pocket, without causing any conspicuous bulge. It deals with some 1500 proprietary preparations, arranged in alphabetical order. Under each item are given the composition, a brief mention of the indications, the dosage and the pack. The type is small but clear, and a large amount of information is included in a very compact vehicle without overcrowding the pages. The aim of this booklet is to help in identifying ethical proprietary preparations. The absence of any kind of cross-index, apart from one listing the pre-

parations described under the names of the various drug houses, will limit the usefulness of this book. It is compiled for doctors in Britain, and the absence of any preparations not marketed there will further limit its usefulness in Australia.

Notification of Communicable Diseases: A Survey of Existing Legislation. World Health Organization; Offprint from Vol. 9, No. 4, of the International Digest of Health Legislation. Geneva: World Health Organization. 9¾" x 6", pp. 51. Price: 3s. 6d.

THIS pamphlet is a survey of the practices and legislation in regard to notification of communicable diseases in about 50 countries, and will be a useful guide to anyone seeking information on these matters. The subject matter is arranged under the following headings: legislation, classes of notifiable communicable diseases, lists of notifiable diseases, notification of carriers, when notifications must be made. There is an appendix giving the lists of notifiable diseases in the various countries surveyed and a list of references to the relevant legislation. This pamphlet is reprinted from the *International Digest of Health Legislation*, volume 9, number 4.

Notes on Injections for Nurses. By T. H. White, M.B., Ch.B., D.T.M. and H.; 1959. Bristol: John Wright & Sons, Limited. 7¼" x 4¾", pp. 32, with illustrations. Price: 2s. 6d.

THIS little pamphlet is a reprint of notes originally compiled by a practitioner in Kenya for the use of his hospital staff, because there was no single text-book which dealt with the subject to his satisfaction. It is strictly practical and written in clear, concise language, and seems admirably suited to its purpose. The contents are arranged under the following headings: indications, special precautions, routes, anatomy, hazards, sterilization, syringes and needles, technique, cleaning, tray for routine injections, and an appendix on the use of hyaluronidase. This pamphlet might be particularly useful for anyone who had to train medical orderlies in territories such as New Guinea, and it would also be useful to help non-medical personnel who might be called on to give injections anywhere.

Books Received.

[The mention of a book in this column does not imply that no review will appear in a subsequent issue.]

"The Dyslipidoses", by Raúl Fleischmajer, M.D.; 1960. Springfield, Illinois: Charles C. Thomas, Publisher; Oxford: Blackwell Scientific Publications Ltd. 9" x 6", pp. 528, with illustrations. Price: £6 8s. (English).

"Mackie & McCartney's Handbook of Bacteriology: A Guide to the Laboratory Diagnosis and Control of Infection", edited by Robert Cruickshank, M.D., F.R.C.P., D.P.H., F.R.S.E.; Tenth edition; 1960. Edinburgh and London: E. & S. Livingstone Limited. 8½" x 5½", pp. 992. Price: 40s. (English).

"Recent Advances in Pathology", edited by C. V. Harrison, M.D.; Seventh edition; 1960. London: J. & A. Churchill Ltd. 8" x 5¼", pp. 472, with 140 illustrations. Price: 48s. net (English).

"The Health of the Community: Principles of Public Health for Practitioners and Students", by C. Fraser Brockington, M.A., M.D., B.Chir. (Cantab.), D.P.H., M.R.C.P. (Lond.), M.Sc. (Manch.), Barrister-at-Law (Middle Temple); Second edition; 1960. London: J. & A. Churchill Ltd. 8¾" x 5¾", pp. 364. Price: 35s. net (English).

"Valvular Disease of the Heart in Old Age", by P. D. Bedford, M.D., M.R.C.P. and F. I. Caird, D.M., M.R.C.P.; 1960. London: J. & A. Churchill Ltd. 8" x 5", pp. 206, with 38 illustrations. Price: 30s. net (English).

"The Practice of Medicine", edited by Sir John Richardson, M.V.O., M.A., M.D. (Cantab.), F.R.C.P.; Second edition; 1960. London: J. & A. Churchill Ltd. 9¼" x 6", pp. 984, with 87 illustrations. Price: 37s. 6d. (English).

"An Introduction to Functional Histology", by Geoffrey H. Bourne, M.Sc., D.Sc., D.Phil.; Second Edition; 1960. London: J. & A. Churchill Ltd. 9" x 6½", pp. 272, with 181 illustrations. Price: 32s. net (English).

"Atlas of Clinical Hematology", by Katsuji Kato, Ph.D., M.D.; 1960. New York and London: Grune & Stratton. 10" x 7", pp. 302, with illustrations. Price: $25.00.

"Modern Occupational Medicine", edited by A. J. Fleming, M.Sc., M.D., F.A.C.P., and C. A. D'Alonzo, M.D., F.A.C.P.; Second edition; 1960. Philadelphia: Lea & Febiger; Sydney: Angus & Robertson Ltd. 9¼" x 6", pp. 588, with illustrations. Price: £6 12s.

"Antenatal and Postnatal Care", by F. J. Browne, M.D. (Aberd.), D.Sc., F.R.C.S. (Edin.), F.R.C.O.G., and J. C. McClure Browne, B.Sc., M.B., B.S., F.R.C.S. (Edin.), F.R.C.O.G.; Ninth edition; 1960. London: J. & A. Churchill Ltd. 9¼" x 5¾", pp. 446, with 75 illustrations. Price: 45s. net (English).

"The Doctor and the Minister: A Discussion of Medical-Clerical Co-operation for the Good of the Sick; 1960. Sydney: Australian Council of Churches. 8½" x 5½", pp. 40. Price: 6s.

"The Pharmacology of Anesthetic Drugs: A Syllabus for Students and Clinicians", by John Adriani, M.D.; Fourth edition; 1960. Springfield, Illinois: Charles C. Thomas; Oxford: Blackwell Scientific Publications Ltd. 10¾" x 8¾", pp. 248, with many illustrations. Price: 88s. (English).

"Cirrhosis of the Liver", by Martin Seler Kleckner, Jr., A.B., M.S. in Internal Medicine, M.D.; 1960. Springfield, Illinois: Charles C. Thomas; Oxford: Blackwell Scientific Publications Ltd. 9" x 5¾", pp. 752, with many illustrations. Price: £9 16s. (English).

"Disease in Infancy and Childhood", by Richard W. B. Ellis, O.B.E., M.A., M.D., F.R.C.P.; Third edition; 1960. Edinburgh and London: E. & S. Livingstone, Ltd. 9¾" x 6", pp. 724, with 301 illustrations. Price: 55s. net (English).

"The Surgical Clinics of North America", Volume 40, Number 5, October, 1960. "Management of Surgical Emergencies", edited by Walter C. MacKenzie, M.D. Philadelphia and London: W. B. Saunders Company; Melbourne: W. Ramsay (Surgical) Limited. 9" x 5¾", pp. 1129-1466, with illustrations. Price: Cloth binding: £8 2s. 6d. per annum. Paper binding: £6 15s. per annum.

"Cell and Tissue Culture", by John Paul, M.B., Ch.B., Ph.D., M.R.C.P. (Edin.); Second edition; 1960. Edinburgh and London: E. & S. Livingstone. 8½" x 5½", pp. 324, with illustrations. Price: 32s. 6d. (English).

"The Eye in General Practice", by C. R. S. Jackson, M.A., B.M., B.Ch. (Oxon.), D.O.M.S., F.R.C.S. (Edin.); Second edition; 1960. Edinburgh and London: E. & S. Livingstone. 8½" x 5½", pp. 160, with illustrations. Price: 21s. net (English).

"Hospital Infection: Causes and Prevention", by R. E. O. Williams, M.D., M.R.C.P. *et alii*; 1960. London: Lloyd-Luke (Medical Books) Ltd. 8½" x 5½", pp. 318. Price: 35s. net (English).

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The Medical Journal of Australia

SATURDAY, DECEMBER 31, 1960.

MEDICAL SERVICES AND MEDICAL EDUCATION IN PAPUA AND NEW GUINEA.

IN Australia's programme for the development of the Territory of Papua and New Guinea and for the advancement of its peoples, an increasingly prominent place has been given to the health services. Speaking at a Summer School in Canberra in January, 1958, the Honourable Paul Hasluck, Minister of State for Territories, expressed his attitude clearly:[1]

> Health is a defined, precise and concrete task. I have no hesitation in saying to the Territory Administration "Go ahead as hard as you can". Six years ago, in the face of complaints that the Health Department was getting more than its fair share of the Territory Budget, I directed that it was to have an even bigger part. There is room for discretion in what we do but there should be no restraint on our energy until we have achieved the aim of putting health services within reach of the whole of the population.

Not the least important reason for developing the health services in the Territory is the need for lifting what Dr. J. T. Gunther, Assistant Administrator of the Territory, has called[2] the curtain of disease which hangs over what should be a virile people. It is inevitable and right, though the process may well be slow, that the native peoples of the Territory should progress towards complete self-determination, but they must be helped to bring the best that they have to the responsibility involved. Dr. Alex Sinclair, commenting on Dr. Gunther's statement, has said[3] that we shall not really know the full extent of their physical and mental potential until they are freed from malaria and hookworm and are no longer hobbled by malnutrition. "These", in Dr. Sinclair's words, "are the chief physical causes of that deep malaise which affects the men and women of the Territory." With them are certain psychological components of the malaise which also need to be tackled realistically; some attention was given to them in a previous discussion in these columns on August 9, 1958.

It is clear, as Mr. Hasluck has said,[4] that the task of health in the Territory is an immense one, and that "it is concerned not solely with providing hospitals, doctors, nurses and medicines (although all of those are extremely important) but also with very fundamental problems of social change and provision of public works". Moreover, "the task of health cannot be accomplished until the indigenous people themselves are engaged in it", and for this reason an extensive training programme is being developed. A paper published a short time ago by Dr. E. J. Wright, Assistant Director (Medical Training) in the Territory's Department of Public Health,[5] indicates the ramifications of this programme, which includes the teaching hospital, medical practitioner training, nursing training, ancillary services personnel training, aid post orderly training and in-service training for present unskilled staff. The aim is "to establish, to university standards, a medical college and teaching hospitals, together with nursing and ancillary medical services of the standard required to adequately supply the medical needs of the country". This is a far-sighted and even exciting plan, and we must admire the courage of those who have conceived it and are undertaking it, for it will not be brought into effect without great dedication and much patient and intelligently directed toil. According to Dr. Wright, the medical college and teaching hospital should become, firstly, autonomous institutions within the framework of the Public Health Department and, secondly, completely autonomous institutions or answerable only to a university in Papua and New Guinea or, by affiliation, to a university in Australia. The hospital should become a centre for specialist medical services for the whole Territory, and a close liaison should be built up with the hospitals of the Papua Region — objects already largely attained.

The establishment for medical practitioner training, the Papuan Medical College, is already on its way. A preliminary year was completed in 1959, and the first year proper has been in action in 1960. The standard for entrance is the Queensland Junior or N.S.W. Intermediate Certificate level. Students who have not passed these examinations must do a preliminary year of training in English and Mathematics to test their suitability for the course. In this preliminary year they also do the full course of first year nursing, both in theory and in the wards; this is particularly important since those who are found to be unsuitable to go on with the medical course may then go on to the second year of nursing training, and the year will not have been wasted. After the preliminary year a six-year course of training is planned based largely on the courses in Australian universities. Graduates from this school will not, we understand, receive a medical degree, but it is anticipated that the standard reached will be high enough for the duties of an assistant medical officer, as the successful candidate will become. It is expected that each year the entrance standard will rise until matriculation will be required for entrance; standard university textbooks will then be used for instruction, and no doubt in time the standard of final qualification will reach a level comparable with that of other medical schools. We hope that in fact the time for this will not be long in coming. Assistant medical officers in the Territory, who have had to go elsewhere for their training, already enjoy good standing and, by direction of the Director of Public Health, are addressed by the title of doctor.[6] It should be a happy day for the people of

[1] "New Guinea and Australia", Papers read at the 24th Summer School of the Australian Institute of Political Science, held at Canberra, A.C.T., January 25 to 27, 1958; edited by John Wilkes; Angus and Robertson, Sydney, 1958: 95.
[2] *Ibid*: 47.
[3] *Ibid*: 70.
[4] *Ibid*: 94.
[5] *Papua & New Guinea Med. J.*, 1960, 4: 23 (April).
[6] *Ibid*, 1959, 3: 36 (August).

Papua and New Guinea when they have the bulk of their medical services provided by men from amongst themselves trained in their own Territory.

Current Comment.

CULDOSCOPY.

CULDOSCOPY, meaning the inspection of the uterus, Fallopian tubes and ovaries by means of an instrument passed through the posterior vaginal fornix, was established as a practical procedure largely by the work of A. Decker in America. Earlier attempts to use this route to examine the internal genital organs had been made, but Decker's contribution was to place the patient in the knee-chest position (in previous attempts a combined lithotomy and Trendelenburg position had been used) and to devise a suitable endoscope. He had perfected his technique and established the procedure in its present form by 1944, and by the end of that decade it was in use in a number of gynæcological clinics in America and elsewhere. Since then, it has been adopted with considerable enthusiasm chiefly in America and in some Continental centres, but hitherto British gynæcologists have for the most part continued to regard it with considerable reservations. It is therefore of some interest that a leading British gynæcologist, T. N. A. Jeffcoate, has recently published[1] what is perhaps the first account of the extensive use of this procedure in a British clinic.

Jeffcoate introduced culdoscopy into his clinic in 1956, having been convinced of its value, simplicity and safety in well selected cases, as a result of experience with the technique while on a visit to an American clinic. In his present paper he discusses the role of culdoscopy in gynæcological diagnosis, reviews the history of culdoscopy, and reports the results of its use in 75 cases in his own clinic. He notes that the knee-chest position is essential to safe and useful culdoscopy, but presents certain anæsthetic problems. In America, the procedure was at first carried out under local infiltration anæsthesia, and in some Continental centres, it is stated, without any anæsthetic at all. Jeffcoate states that in America local infiltration is being discarded in favour of low spinal or caudal anæsthesia; however, he considers that this also has certain disadvantages, and he himself employs full endotracheal anæsthesia, the anæsthetized patient being first strapped to a Clover's crutch, then rolled into position on the operating table. In Sydney, Grant[2] in 1956 reported a series of culdoscopic examinations in which intravenous "Pentothal" anæsthesia with oxygen delivered by an intranasal catheter was found satisfactory. However, he informs us that he has now abandoned this method in favour of low spinal "saddle block" anæsthesia combined with heavy basal sedation. It seems clear that the question of a suitable anæsthetic for a patient being subjected to this somewhat rigorous procedure is one of the main problems facing its advocates.

In giving the results of endoscopic examinations performed at his clinic, Jeffcoate states that culdoscopy should be successful in 95% of cases with the use of general anæsthesia and a good selection of cases. In appropriate cases Jeffcoate combines culdoscopy with dilatation and curettage or with tubal patency tests, while the patient is still in the knee-chest position. The indications for culdoscopy in his series were as follows: infertility, 38 cases; virilism, 9; amenorrhœa, 8; possible ectopic pregnancy, 6; miscellaneous, 9. Culdoscopy revealed a significant infertility factor in 15 patients thought to have normal pelvic organs. The procedure made it possible to say that the pelvic organs were normal in appearance in approximately half the cases investigated. Jeffcoate considers that culdoscopy has much to offer in the study of infertility by allowing the recognition of peri-tubal and peri-ovarian adhesions. Pelvic tuberculosis involving the tubes only may be unrecognized by ordinary tests and found at culdoscopy. This procedure may also be of help in the study of ovulation and other factors concerning the physiology of the tubes and ovaries. Patients with mild virilism, presenting with hirsutism and oligomenorrhœa, often present difficulties in diagnosis; culdoscopy may reveal an unsuspected ovarian lesion, or the finding of normal ovaries may permit a reliable diagnosis of constitutional hirsuties. In one patient the problem of intersex was elucidated by finding testes with the culdoscope. Among eight cases investigated for amenorrhœa, bilateral cystic ovaries were found in three, gonadal agenesis in two, atrophied ovaries in one and no abnormality in two. Culdoscopy was also found useful in diagnosing pelvic endometriosis, unsuspected pelvic adhesions, a small granulosa cell tumour and an early carcinoma of the tube. Contraindications to culdoscopy include any systemic illness causing risk to a patient being anæsthetized in the knee-chest position, acute inflammatory conditions of the genital tract, vaginal malformation, a fixed retroversion and a tumour in the pouch of Douglas. No serious complications occurred in Jeffcoate's series. He concludes his paper with a warning that culdoscopy is an investigation which is open to abuse and is not meant to replace routine clinical methods of diagnosis, and states that one of its most important uses is to exclude organic disease of the pelvic organs.

We have already noted the marked regional variations which exist in the popularity of this procedure. The reasons for this are no doubt complex, but the two main factors are probably the training and experience of the surgeons concerned, and considerations relating to the examination of a patient in the knee-chest position. In Australia four years ago Alan Grant published his account of 162 culdoscopic examinations carried out at the Women's Hospital, Crown Street, Sydney, the main indication being sterility in patients for whom other investigations had proved fruitless. We understand that this is still the main centre for culdoscopy in Australia. Exponents of the procedure claim that it offers a solution in many cases in which exploratory laparotomy would otherwise have to be considered. Doubters suggest that if a patient's complaints are serious enough to justify culdoscopy, they justify an exploratory laparotomy, which, under modern operating conditions, is equally safe and more certain. Certainly after culdoscopy the patient can normally go home the next day and there is no period of convalescence. Probably, as with many other procedures, once a team have become experienced in its employment, many of the objections to it are found to lose their force. It seems likely that, once the first wave of enthusiasm for a new procedure has passed, culdoscopy will be accepted as a useful procedure in a limited range of conditions (notably certain problems of sterility), but that its employment will remain restricted to some of the larger centres where there has been an opportunity to obtain adequate experience in the technique.

[1] *J. Obstet. Gynæc. Brit. Emp.*, 1960, 67: 529 (August).
[2] MED. J. AUST., 1956, 1: 834 (May 19).

TREATMENT OF TUBERCULOSIS IN CHILDREN.

A STATEMENT on the treatment of childhood tuberculosis by the Committee on Tuberculosis and Respiratory Diseases in Children of the American Trudeau Society appears in the *Journal of Pediatrics*[1] and the *American Journal of Diseases of Children*.[2] It is recommended that isoniazid should be a part of every regimen for treatment of active tuberculosis, the usual dose being about 15 mg. per kilogram daily, taken in two or three doses. A difference of opinion with respect to the proper dosage is due to the fact that in children, as in adults, a proportion of patients rapidly inactivate the drug and render it impotent by conjugation in the liver. With the larger

[1] *J. Pediat.*, 1960, 57: 290 (August).
[2] *Amer. J. Dis. Child.*, 1960, 100: 424 (September).

doses of isoniazid, pyridoxine has not seemed to be a necessary additional drug for the prevention of neuritis in children, although it may be necessary in adolescents. Para-aminosalicylic acid is the most commonly used second drug when a combination regimen is employed, the dosage usually being 200 mg. per kilogram per 24 hours. When sodium, potassium or calcium para-aminosalicylate is used, the dose should be 300 mg. per kilogram daily. The advantage of a double drug regimen lies in the fact that the emergence of resistant strains of *Mycobacterium tuberculosis*, which takes place during rapid multiplication of organisms, is delayed or prevented. Streptomycin is not used except for special conditions such as tuberculous meningitis, miliary tuberculosis, all but the very minimal cases of renal tuberculosis, and perhaps bone and joint tuberculosis. The normal dosage is 20 mg. per kilogram per day. Dihydrostreptomycin should not be used in pædiatric practice since it has a selective and often irreversible toxicity for the auditory divisions of the eighth nerve. It has not been conclusively demonstrated that administration of isoniazid, PAS and streptomycin simultaneously ("triple-drug therapy") has a definite advantage over any two-drug combination which includes isoniazid, and it should be kept in mind that toxicity is increased. Therefore "triple drug therapy" should be reserved for the more serious forms of disease. Corticosteroids should be used for the infant or young child who is dangerously ill in order to support him until antimicrobial drugs have an opportunity to produce some effect. The indications for the use of corticosteroids in pleurisy, meningitis and endothoracic primary complex are discussed. The usual dose is 1 mg. per kilogram of prednisone per day for two or three months with gradual withdrawal. The optimum duration of drug therapy is not known with precision, but the usual duration is at least one year and preferably eighteen or even twenty-four months, depending on the extent and severity of the disease, the longer duration being reserved for more serious forms of disease. When streptomycin is employed in a triple-drug regimen, it should be discontinued within a month after satisfactory clinical response.

The Committee then proceeds to discuss in further detail the management of different forms of childhood tuberculosis, such as endothoracic primary tuberculosis complex, tuberculous meningitis, miliary tuberculosis, renal tuberculosis, superficial lymphadenopathy, tuberculosis of bone and joint, and serous effusions. The following recommendations are made concerning the prophylactic treatment of the tuberculin converted with no manifest disease. If tuberculin conversion is known to have occurred within one year prior to the time of examination, all children up to 14 years of age should be placed on treatment, using either one or two drugs, one of which should certainly be isoniazid. The treatment should be continued for at least one year and possibly longer, isolation and bed rest not being necessary. When the date of conversion of the tuberculin reaction is unknown and the patient has no signs or symptoms, it is thought that all patients less than 36 months of age should be treated for at least one year. Intercurrent infections, such as measles and pertussis, increase the hazard and therefore the need for antimicrobial therapy. Any tuberculin-positive child who is to receive steroid treatment for another disease should receive concurrent antituberculosis treatment. A child with a positive tuberculin reaction should receive antituberculosis therapy for at least four weeks in the event of an attack of measles.

"BRAVE AND BLOODY WORK."

DUDLEY MCCARTHY'S record of the first year of Australia's activity in the South-West Pacific Area in the War of 1939-1945[1] provides a strange, eventful story "of brave and bloody work", reading at times more like fiction than history. Told brilliantly by an infanteer, of infanteers, it will stand for all time as a fitting monument to the many hundreds who gave their lives for their country, and to the many thousands who suffered almost unendurable privations and hardships.

Clearly many years of painstaking research into all the political and service documents of both the allies and the enemy have been undertaken to piece together into a clearly woven pattern the events of this era, an all-important one to the safety of the mainland of Australia. Few people taking part in any of these operations would have been aware of all the things that were happening simultaneously. This book clearly indicates their interrelationship—for example, how the American struggle to hold Guadalcanal prevented the Japanese from using far greater and perhaps critical strength against the slenderly held New Guinea. The narrative switches repeatedly from minute details of infantry operations to the grand strategy of Churchill and Roosevelt, and in relationship to this there is clearly described "the summary manner in which they relegated Australia to a position of ignorance and voicelessness in relation to their planning". McCarthy succeeds in holding the reader's interest throughout the 600-odd pages.

The details of the clash of strong personalities resulting in the replacement of Lieutenant-General S. F. Rowell and Major-General A. S. Allen are revealed, as also is the complete lack of understanding of the physical difficulties confronting the forward troops in the early stages by the Commanders on the mainland who at that time had never seen the country. It is of interest to recall that the map on page 114 of the Kokoda track, sketchy to say the least, is a vastly superior one to the one possessed by the Headquarters of the Seventh Australian Division when it commenced the control of the forward operations in the Owen Stanley Range. Few knew that in the Imita ridge area "the track rose 1,200 feet in the first three miles, dropped then some 1,600 feet, then rose 2,000 feet in the last four miles". Few knew that their men would have to cling like leeches to the rough slopes, that they would be always "wet from the cold driving rain and added to the shortness of their rations, was the virtual impossibility of cooking food for themselves or making even a drink of hot tea"—"only 40 yards from their enemies"—"fighting by individuals pitted against one another, by small groups meeting and killing in sudden encounters among the silently dripping leaves and tangled quiet of the high rain forests"—"for slightly more than every two wounded one was killed—the measure of the closeness of the fighting"; "everywhere the Japanese fought virtually to the last man".

A description is given of the greatest single problem of the campaign—supply—and the methods taken to overcome it. "As the campaign developed, so did a satisfactory system evolve, mainly through trial and error." One unique method, and the only significant omission from the book we can find, is given in the "Order of the Day" issued by that refreshing character and determined soldier, General Vasey, at Isurava on November 1, 1942, when a supply-dropping mission had failed and supplies were nil. In part it reads: "Congratulations to you and the fine troops under your command for the rapid advance you have made under shocking conditions which include hunger. The enemy is beaten. Give him no rest, and we will annihilate him. It is only a matter of a day or two. Tighten your belts and push on."

Amidst a wealth of material, the stories of the New Guinea Volunteer Rifles and the Papuan Infantry Brigade, of Wau and of Timor are concisely given. The book is well written and liberally supplied with photographs and maps; it will provide great interest to all who took part in these campaigns, a source of inspiration to those who did not. The print is easy to read and the book is good value for its price. The War History staff, and especially its editor, are to be congratulated on a fine production.

[1] "Australia in the War of 1939-1945: South-West Pacific Area—First Year: Kokoda to Wau", by Dudley McCarthy; 1959. Canberra: Australian War Memorial. Sydney: Angus & Robertson, Limited. 9¼" x 6", pp. 672, with many illustrations. Price: 30s.

Abstracts from Medical Literature.

OPHTHALMOLOGY.

Ocular Aspects of Electromyography.

S. I. DAVIDSON (*Brit. J. Ophthal.*, July, 1960) discusses the practical aspects of electromyography as applied to extraocular muscles. Electromyography has a limited application in the assessment of extraocular muscle paresis. The procedure is of great value in the diagnosis of ocular myopathies. Electromyography has provided evidence that chronic progressive nuclear ophthalmoplegia is due to a myopathy of the extraocular muscles rather than to a nuclear degeneration. This diagnostic procedure is of great value also in the diagnosis of myasthenia gravis. In the investigation of disturbances in ocular mobility such as the A and V syndrome, trauma and congenital affections of the extraocular muscles, electromyography may give useful information.

Isolation of Virus from a Case of Trachoma in Western Australia.

DOROTHY PERRET AND IDA MANN (*Brit. J. Ophthal.*, August, 1960) have successfully isolated trachoma virus from a three-year-old half-caste boy in Western Australia. Smears from the tarsal plates were inoculated by yolk sac route into three seven-day-old chick embryos. Smears from these yolk sacs showed bodies resembling elementary bodies and the intracellular forms of the psittacosis-lymphogranuloma venereum group of viruses. The laboratory tests suggest that the agent has the characteristics of the trachoma virus isolated by Tang and Collier.

Colistin in Pseudomonas Infection.

D. M. GORDON AND J. M. MCLEAN (*Amer. J. Ophthal.*, July, 1960) report a case of *Pseudomonas pyocyanea* infection successfully treated with colistin. Colistin is effective against a wide range of Gram-negative organisms. The antimicrobial spectrum includes *Salmonella*, *Escherichia*, *Pseudomonas*, *Brucella*, *Shigella*, *Hæmophilus*, *Spirillum*, *Micrococcus* and *Proteus*. The patient described had a malignant corneal ulcer and hypopyon. He was given topical applications of "Colimycin", 500,000 units in 7·5 ml. of sterile water, used as eye drops, several times an hour for the first few days. After one week the concentration was halved.

The Clinical Application of the Goldmann Applanation Tonometer.

T. A. F. SCHMIDT (*Amer. J. Ophthal.*, May, 1960) describes in detail the technique employed in the use of the applanation tonometer. He regards 21 mm. of mercury as the limiting value and pressures higher than this are glaucoma suspects. He uses applanation tonometry for all patients over 40 years and all myopes over 20 years if the myopia exceeds three dioptres. If the intraocular pressure exceeds 21 mm. of mercury the visual field is plotted and tonometry repeated. If pressure does not exceed 22 mm. of mercury and if the field is normal, re-examination is performed one year later. With pressures of 22 to 24 mm. of mercury tonometry is repeated after eight days and the visual field checked after six months. If pressure exceeds 24 mm. of mercury, the diurnal pressure curve is plotted. If pressure curves show several peaks higher than 23 mm. of mercury, therapy is commenced. Surgery is performed if tension is constantly greater than 26 mm. of mercury or if there is field loss and a tension of 22 to 26 mm. of mercury in spite of medical therapy.

Implantation of Intraocular Lenses in Unilateral Aphakia.

C. D. BRINKHORST (*Amer. J. Ophthal.*, April, 1960) describes his results with various intraocular lenses in unilateral aphakia. He used the Ridley implant with good effect in 12 patients. Anterior chamber lenses were used in 35 eyes. Cloudiness of the cornea was observed as a late complication in nine out of 35 eyes. This corneal cloudiness did not respond to any treatment. The cause of this late corneal œdema is damage to the corneal endothelium, and this damage is due to the lens prosthesis. The author designed a lens which could not have contact with the anterior chamber angle or the posterior surface of the cornea. This lens is biconvex, 5 mm. in diameter and 0·6 mm. thick at its centre. The lens has to be located immediately in front of the pupil and it is fixed in this position with two wire loops, bent at right angles, and attached to its posterior surface close to the equator. These wire loops are inserted through the pupil and come to lie against the posterior surface of the iris. To prevent backward luxation of the lens through a wide pupil two flat wire loops have been mounted to the equator of the lens. The posterior loops prevent forward dislocation. The author has used this lens in 29 patients without complication.

Optic Neuritis in Children.

C. KENNEDY AND F. T. CARROLL (*A.M.A. Arch. Ophthal.*, May, 1960) have reviewed the histories of all children 15 years of age or younger with optic neuritis who had been examined by them in the past 25 years. It is found that optic neuritis could be divided into three groups. The first group consisted of cases of optic neuritis associated with familial or generalized disease, the second group included those cases associated with disseminated sclerosis, and the third group those in which no cause could be determined. It appears that in this condition headache is present more frequently in children than in adults; pain on movement of the eyes and pain in the eye seem to be about as common as in adults. Bilateral involvement is more common in children. In children papillitis is common. In most cases the swelling varied from one to three dioptres, and in some a few hæmorrhages were present. The cerebro-spinal fluid was normal in all cases except two. It is likely that a child having elevation of the gamma globulin fraction of the spinal fluid suffers from a demyelinating process. Of the 41 children reviewed, congenital syphilis, measles, malnutrition and diabetes accounted for optic neuritis in six, four had hereditary optic atrophy, and one had Schilder's disease. Eight had multiple sclerosis and in the remaining 22 no cause could be found. In optic neuritis of unknown origin there is a tendency to recovery.

Effect of Demecarium Bromide on Normal Eyes.

N. KRISHNA AND I. H. LEOPOLD (*Amer. J. Ophthal.*, February, 1960) report a study of the effects of demecarium bromide (BC-48) on normal rabbit and human eyes. In normal human eyes BC-48 was instilled after mydriasis had been produced with 1% atropine and 4% homatropine solutions. Single instillations of BC-48 abolished the action of atropine and homatropine. Miosis was noticeable after one to three hours, was maximal in 24 hours, and persisted for five to seven days. In normal eyes not under the effect of mydriatics, single instillations of BC-48 produced miosis in 45 to 60 minutes; this was maximal in two to four hours and persisted for three to ten days. In all eyes there was a significant increase in the coefficient of aqueous facility 24 hours after instillation. In all normal eyes BC-48 produced browache, blurred vision, increase in false myopia and increase in capacity for accommodation. Superficial and deep congestion was noted in nearly all eyes. The drug is a potent cholinesterase inhibitor, possessing powerful muscarinic and some nicotinic properties. It resembles neostigmine in action. It is not blocked by physostigmine.

Transient Myopia due to Autonomic Blocking Agents.

E. E. GROSSMAN AND W. HANLEY (*A.M.A. Arch. Ophthal.*, May, 1960) report the case of a young man treated with hydralazine and hexamethonium for hypertension which had not been cured by sympathectomy. Before treatment he had normal vision, but soon after commencing treatment he needed a —1·25 sphere to produce clear vision. After the instillation of 4% homatropine drops vision became normal without correction. In this case the drugs produced myopia due to spasm of accommodation even though on one occasion the pupils were partially dilated. The authors suggest that many of the cases of blurred vision due to these drugs, which are often regarded as being due to paralysis of accommodation, may in fact be due to spasm of accommodation.

Unfavourable Effects of Alpha-Chymotrypsin.

C. D. TOWNES (*A.M.A. Arch. Ophthal.*, July, 1960) records some of the serious complications which have been encountered following the use of alpha-chymotrypsin. The enzyme was used in 67 consecutive cataract operations, and in a second series 67 operations were performed without the enzyme. Prolapse of the iris occurred four times (6% of cases). In analysing 2246 cataract operations it was found that prolapse of the iris occurred only 24 times (1% of

cases). Striate keratitis occurred more frequently and in a more severe form in the enzyme group. Seven patients had severe striate keratitis and of these three had permanent infiltration of the cornea; in all of these extraction was completed by the sliding method, no instrument being introduced into the anterior chamber. In the control group only two œdematous corneas were seen. Reopening of the wound occurred in four patients, and all required resuturing. This was not observed in the control group. The author concludes that the enzyme delays wound healing, should not be used in children, and should not be used in people over the age of 70 years. If the enzyme is used, a limbal incision should be employed and the wound closed with a minimum of five corneo-scleral sutures.

Fluorescein in Applanation Tonometry.

R. A. MOSES (*Amer. J. Ophthal.*, May, 1960, Part 2) shows that unless there is adequate concentration of fluorescein in the tears there will be an underestimate of the intraocular pressure. The purpose of fluorescein in the tears is to delineate the margin of the applanated area. He shows that the measurement of intraocular pressure with the applanation tonometer requires that the meniscus of tear fluid surrounding the flattened corneal surface be sufficiently stained with fluorescein in a fluorescent state so that the apex of the wedge-shaped meniscus is visible. Two topical anæsthetic solutions in use quench much of the fluorescence of the fluorescein, and tend to produce an underestimate of intraocular pressure. It is suggested that to avoid such an underestimate, after topical anæsthesia, fluorescein paper be moistened with saline or distilled water and applied to the conjunctiva so that a liberal quantity of fluorescein in a fluorescent condition will be present in the tear fluid during tonometry.

Methazolamide in the Therapy of Glaucoma.

B. BECKER (*Amer. J. Ophthal.*, June, 1960) compares "Neptazane" (methazolamide) with "Diamox" in their effectiveness in lowering intraocular pressure for short and long term therapy. "Neptazane" was administered initially in doses of 100 to 200 mg. every six to eight hours, followed by 150 to 450 mg. daily in divided doses; "Diamox" was administered in initial doses of 260 to 500 mg. every four to six hours, followed by divided oral doses to a total of 500 to 2000 mg. daily. Miotic therapy was continued in all patients. In a short term study "Neptazane" suppressed aqueous secretion by more than 40% in 103 out of 169 eyes. With "Diamox" suppression of aqueous secretion occurred in 83% of eyes. However, a number of patients treated with "Diamox" had intravenous therapy. In long term therapy "Diamox" was more effective than "Neptazane", but the latter could be used at a much lower dose than "Diamox" and it produced fewer side effects. "Neptazane" is most useful for long term therapy in patients who fail to tolerate other carbonic anhydrase inhibitors.

OTO-RHINO-LARYNGOLOGY.

Blood Loss during Tonsillectomy in Children.

W. E. SPOEREL *et alii* (*Canad. Med. Ass. J.*, June 18, 1960) have measured the blood loss during tonsillectomy and adenoidectomy in 197 children. It was found that suction afforded a satisfactory means of measurement. The average blood loss was 109 ml., with a range from 14 to 448 ml. In 18% of the operations the blood loss exceeded 10% of the calculated total blood volume. The average blood loss was least when the operation was done by general practitioners and greatest when it was done by interns; operations by specialists fell in an intermediate range. Routine measurement of the blood loss is recommended by the authors, in order that the occasional serious loss should not be overlooked.

Importance of Chronic Laryngitis.

GABRIEL AND GLYN JONES (*J. Laryng.*, June, 1960) discuss the importance of chronic laryngitis in relation to laryngeal cancer. They report a series of cases observed during a five-year period. Of 101 patients admitted for direct laryngoscopy, 10 ultimately developed cancer. During the same period, of 51 cases of cancer of the larynx, in 10 the condition followed a chronic laryngitis. They state that while most laryngologists accept leukoplakia as a pre-cancerous condition, and Pietrantoni and Fior state that 14% of patients with cancer of the larynx have been subjected to vocal strain, the general surgeon and pathologist seem much more definite in the view that chronic irritation does lead to epithelial cancer. In a majority of cases there was quite some delay before the patient sought a laryngologist's advice. The authors state that, in their opinion, patients with hoarseness of over three weeks' duration should seek the advice of a laryngologist. They present five case summaries with comments, as being illustrative of the development of chronic laryngitis.

Carcinoma of the Larynx.

J. M. BLACK (*J. Laryng.*, June, 1960) discusses treatment of carcinoma of the larynx by the local application of radium, usually called the "Finzi-Harmer method". He critically assesses its use and reaches the conclusion that other methods of treating cancer of the larynx, where the site and extent of the lesion allow a choice, are to be preferred. The occurrence of radionecrosis at a later date plus the difficulty in defining the true extent of the growth as well as deciding the dosage of radiation make this method the less useful. The only advantage in the author's view is that, if a surgical method is employed, the Finzi-Harmer technique is simpler than laryngo-fissure and resection of the growth. It can be used for a somewhat more extensive lesion and is likely to be more effective with the more anaplastic growths.

Closure of Eardrum Perforations.

J. J. SHEA, JR (*J. Laryng.*, June, 1960), discusses a technique which he has developed with the use of vein as the bridge across which the external epithelial layer of the tympanic membrane will grow to close a perforation of the tympanum. He has used this method since 1957 with excellent results. He points out that vein is ideal material as it is easily obtained, is smooth on one surface to prevent adhesions and raw on the other to serve as a bed for the proliferation of epithelium, and also will survive despite a diminished oxygen supply. Cases of central perforation with no evidence of cholesteatoma formation are suitable for this technique. The outer and inner layers of the eardrum are separated with fine picks. No attempt is made to remove mucosa from the medial surface. Pieces of "Gelfoam" are placed in the middle ear to support the vein, which is placed in the middle ear through the perforation, with the intima towards the medial wall of the middle ear. The vein graft should tuck under the edges of the perforation by a half to one millimetre. Ideally, the graft could be placed between the layers of the eardrum. The author states that this method can be used successfully in patients with up to 40% loss of drum.

Water and Salt Balance in Ménière's Disease.

P. H. GOLDING-WOOD (*J. Laryng.*, July, 1960) discusses the pros and cons of fluid and salt restriction in cases of Ménière's disease. He has investigated patients with this condition, noting the effects of overhydration, salt restriction and excess salt intake, and concludes that fluid and salt restriction is probably a valueless and unjustified measure in the management of Ménière's disease. The author states that, though other investigators have come to similar conclusions, they did not impose extreme conditions in their investigations, nor did they observe the sodium concentration that resulted. Another factor brought out by the author is the possibility of incorrect diagnosis. He states that the possibility of some cases being ones of secretory otitis media is very real. In these cases, the treatment given (for Ménière's disease) plus Eustachian catheterization as carried out by Dedering, could have achieved what would have appeared to be successful therapy.

Vasodilator Therapy in Sensory Neural Hearing Loss.

J. L. SHEEHY (*Laryngoscope* (*St Louis*), July, 1960) reports the results of his findings and treatment in 247 patients with sudden and fluctuating sensory neural hearing loss. A vasodilator régime is outlined and the results are given. The author does not reach any conclusion regarding ætiology in these cases, but found that by treating them on the assumption that vascular spasm is fundamental in their development, approximately 50% of patients treated within six weeks of the onset of the loss show significant recovery. Favourable prognostic signs are a low-tone type of hearing impairment, a hearing level of 45 decibels or less in the speech-hearing frequencies, and the absence of vertigo. When the loss fluctuates and is associated with a low-pitched tinnitus, therapy within six weeks of the onset gives a good outlook in approximately two-thirds of cases. When the loss is gradual and not fluctuating, associated with a low-pitched buzzing or roaring tinnitus, treatment will in an occasional case lead to improvement.

On the Periphery.

LOOKING BACKWARDS.

THERE are medical men at this day still living who began the practice of their profession about the dawn of the present century. Looking backwards one can see that practice at that time as if it existed in another world. Those were still the horse and buggy days; the time when medical men wore top hats and frock coats; the period when pills were, for the most part, still made and gilded by hand; the era when such things as antibiotics and tranquillizing drugs (as one knows them at this day) existed only in the womb of the dim future. Virology, as a branch of medical science, had yet to be named, even if that branch was indeed recognizable. No aeroplane had carried man; the jet age was unknown. The science of genetics was beginning; Garrod was showing that certain diseases detected by chemical tests were transmitted along Mendelian lines. Nuclear physics existed in embryo. Textbooks, if they ever mentioned cancer of the bronchus, rarely gave the rare disease the consideration of more than a few lines. Grateful patients paid their fees in golden sovereigns. The hansom cab still plied in city streets, and at times provided transport for the thriving specialist; the motor buggy made its ungainly appearance; while the automobile was a new and certainly uncommon means of locomotion.

To men with vision all science, including medical science, is a single unit. Men live in a busy world in which they must take cognizance of physics, chemistry and biology; but they must heed also political and social science. Medicine has become international; the World Health Organization and the incipient World Pharmacopœia are manifestations of global medicine. One can examine the medical milestones in greater detail.

In 1877 Louis Pasteur, towards the end of his useful life, predicted that in future years media upon which micro-organisms had been grown would provide material which could be used therapeutically. That long-range prophecy was fulfilled in 1928 by Fleming, and later by Florey and Chain, with the discovery of penicillin. Antibiotics, chemotherapy and methods of immunization have now wiped out many infectious diseases. The medical practitioner lives in a new world.

The introduction of thyroid gland substance was the welcome precursor of replacement therapy. Insulin came into use little more than a third of a century ago. In pre-insulin days a starvation diet enabled diabetic patients to eke out an uncertain existence, and inadequately functioning non-specific drugs such as codeine were fragile sheet-anchors to help in the grave complications of the grave disease. Addison's anæmia is no longer pernicious; oral therapy with tablets containing vitamin B_{12} plus the stomach factor are now able to control the formerly dreaded disease. Addison's disease of the adrenal cortex yields to injections of adrenal cortex extract or of the synthetic substitute.

Before 1900 little was known of the laws of biological inheritance. The epoch-making work of the Abbé Mendel had lain gathering dust on the top shelf of libraries, unheeded and untouched for many years, until de Vries and others noted the value of the work, which was brought to the notice of the scientific world. The work of Morgan on *Drosophila* and the research of Beadle and Tatum on *Neurospora* established the nature and purpose of genes and the biological chemistry effected by genes. These discoveries have been vital in the field of human genetics, and in the understanding of many of the problems of hereditary disease. Only a century has elapsed since Charles Darwin wrote the *Origin of Species*, and Gregor Mendel began his painstaking experiments in the monastery garden.

The first knowledge of viruses came in 1894. Viral diseases are many and important. It is strange to look back and realize that the first infectious disease to be conquered by preventible means (smallpox) is a viral disease; yet until the dawn of the century nothing was known of viral diseases. It was at that time that Landsteiner carried out his researches on the method of spread of the virus of poliomyelitis.

Until recent times little was known of the nature of epilepsy; and few remedies were available for its treatment. Bromides were the first useful remedies to be added to the therapeutic armamentarium; that was in 1857. No further improvement in treatment came until the present century. The electroencephalograph, provided by Berger, has added much to the knowledge of epilepsy. It has helped in the diagnosis of occult epilepsy, and it has helped also in the diagnosis of tumours of the brain.

Physiology and biochemistry, handmaidens of medicine, have made great progress; and the new knowledge has benefited medical practice. The work of Bayliss and Starling in 1902 laid the basis of the knowledge of the various chemical messengers or hormones.

Surgery has entered new fields since the day when Sir Frederick Treves helped to initiate the life-saving operation of appendicectomy and *The Lancet*, in reviewing a work by the famous surgeon, wrote pithily: "This book has no appendix." Heart surgery and lung surgery as well as neurosurgery are virtually new arrivals.

Half a century of endeavour has provided the healer with a host of new and potent remedies. This progress is reflected in modern pharmacopœias, which retain few of the remedies of 1900.

Knowledge as to the cause of dental caries has lagged, but the valuable work of the Mellanbys, using puppies, cannot be forgotten. The fluorine factor must be determined by appropriate research in animals and man.

The problems of alcoholism in this age of machinery and the motor-car are pressing and acute. It mattered little in the horse and buggy days if a man was under the influence of alcohol; the horse could be trusted to bring the man and buggy home. Exact work has revealed the deleterious effect on judgement resulting from the intake of even minimal amounts of alcohol.

The effects of alcohol in producing various degrees of mental disorder are not negligible. Alcohol doubtless may have some non-specific therapeutic value. Clinically it ranks as a quasi-stimulant. Physiologically it may reasonably be called an irritant. Biologically it could be classified as a protoplasmic poison, the effects depending on the dose. It was the first of the universal tranquillizers; but its use is unfortunately apt to be attended by manifestations of side effects, in some persons more than in others, and its continuance in excess results in physical, neurological and mental disorders. Various drugs are known which can make manifest mental conditions which would otherwise tend to remain latent. Experience shows that alcohol in this respect resembles these drugs.

The psychiatrist has recollections of cases in which alcohol in excess has played a major part in the commission of criminal acts. Patients have been committed to mental hospital for psychotic conditions, the result (in so far as a detailed investigation has been able to show) of alcoholic addiction. One interesting result of alcoholic addiction is the appearance of Brissaud's reflex and, more rarely, of other pathological reflexes.

The importance of alcohol as a cause of road accidents is not the whole story of the effects of the abuse of alcohol. Today the world is divided into armed camps. In some of these groups alcohol is rarely taken. Alcohol addiction may, one may well believe, play a part in the decline and fall of nations.

Tumours.

Knowledge of carcinogenesis was fragmentary when the present century began. There had been some milestones in knowledge of the cause of tumours. Percival Pott had written on chimney-sweep's cancer. Later it was noted that men working in spinning mills developed cancer with some frequency, the result of the lubricating oil from the machines reaching their garments and skin. Following these observations scientists worked on logical lines. Some used the right oil, that is to say, oil with carcinogenetic properties; but they did not use the right animal—the kind in which neoplasms could be produced with relative ease. Others used the right animal but the wrong oil. At the present time with strong carcinogenetic materials any kind of animals can be used in the experimental work. It was not until 1915 that two Japanese scientists used the right animal, the mouse, and the right (carcinogenetic) oil. They were successful in producing cancer. The method used is familiar enough; the oil is applied to the back of the animal several times a week. A condition of eczema develops after some months, followed by local and metastatic cancer.

The first world war was raging at the time of the momentous discovery; but nations were too busy in their vital task of killing, and the pressing task of investigating the still greater killer, cancer, had to wait. It was not until 1920, when the dove of peace had spread its wings over a war-weary world, that the investigations were again begun.

The greatest advance was made by Kennaway and his assistants; distillation of carcinogenic oils into fractions paved the way for the isolation of the agent, benzpyrene, which caused the tumours in the experimental animal. The New York Bureau of Health some years ago published a list of about two thousand carcinogenetic substances, some used in industry, some used as preservatives or as colouring agents in food, and some used for other purposes. Naturally enough, coal tar, formerly used in medicine, is carcinogenetic; and, although it has some value when applied to the skin, it has been largely displaced by safer medicaments.

The many problems associated with cancer, including bronchogenic cancer, are important at this day. Not many years ago one person in eight in England died from cancer, and about one person in thirteen in Australia died from cancer. In England now about one in six dies from cancer; and in Australia about one in eight dies from the same disease.

A statistical graph published in the London *Times* two years ago was instructive. From 1940 until January, 1958, all forms of cancer except bronchogenic cancer had been more or less stationary in frequency of incidence, but bronchogenic cancer had risen from about zero in 1940 to the highest place in the graph in the period of 18 years. Bronchogenic cancer readily metastasizes into the brain and elsewhere.

Benzpyrene has been isolated from cigarette butts. A recent finding, published in *Public Health Reports* in the U.S.A., indicated that the death rate from lung cancer for men who regularly smoked more than 20 cigarettes a day was nearly 16 times the rate for non-smokers.

Nostalgia and the Alien's Mental Reaction.

In early times it was known that the stranger in a strange land had difficulty in adapting himself to his new environment. The Children of Israel, according to the Bible narrative, in captivity sat by the Waters of Babylon and wept. References to the problem began, in scientific form, to appear three centuries ago; but it has been only in the present century that adequate articles have begun to appear on nostalgia (home-sickness), and the first useful description of the alien's paranoidal reaction did not appear until 1940. Fundamental points in the development of this refractory type of mental disorder are these: the migrant does not have the mental disorder in the land from which he has come, in spite of stresses; the family history and the personal history are usually normal; the mental changes usually become manifest within a few weeks or a few months after arrival. Frank psychotic manifestations may not be noted until after the lapse of several years, but they may occur much earlier. The earliest symptoms of the incipient reaction reveal themselves in marked activity, followed in a few weeks by inertia, fatigue and emotional apathy. The earlier treatment is initiated, the better is the chance of recovery. Some patients should be returned to their homeland without undue delay if they are to be given the chance of recovery. An important point is that immigrants require help from the beginning. The dangers resulting from the mental reaction include the possible development of delusions with suicidal or homicidal trends.

Social Medicine.

Social systems are subject to change. Many social systems have become outworn in the course of time, and they have passed without regret into the limbo of forgotten things. Trial by ordeal, duelling, piracy, privateering and slavery have gone by universal consent. Perhaps alcohol and tobacco will ultimately be on the list of forbidden substances, to be replaced by materials less noxious. Society has outlawed the use of opium, cocaine and other insidious drugs except for legitimate medical purposes.

One form of social medicine unknown at the beginning of the century is that of national health services, replacing the older but relatively inadequate friendly society system. In England the first World War produced an initial system—"ninepence for fourpence", as Lloyd George called it; while the second World War produced the more advanced National Health Service. In Australia a less elaborate service has been provided. These forms of social medicine result from the economic difficulties resulting from war.

Medical men have a direct interest in the last of the outworn systems—war. It is biologically dysgenic, ethically barbaric, and legally and politically no more suitable to solve international difficulties (which are economic difficulties in uniform) than was trial by ordeal suitable to solve individual problems. In any case the world is now small; it is only one day wide, and any local war may again become a global one, fought with atomic weapons which can instantly destroy cities and cause a holocaust of millions of lives.

The medical man, searching deeply into the minds of men, knows how insidiously some paranoidal trend may compel some new fanatical *Führer* to wade through slaughter. In the world of today such a man with a warped brain may blow up a railway bridge, or wreck a towering skyscraper, or (metaphorically) set the world on fire.

Looking backwards, one recalls the dicta of those in a position to know, that the greatest of world wars in the history of mankind could have been prevented. And if they were indeed preventible, why were they not prevented?

Medicine is now an ally of all the sciences; it can ignore none. Looking forward into the near future, one may ask if it can help in the creation of a new world order which will bring wealth, health, happiness and peace.

Acknowledgement.

Permission to publish this article has been given by Dr. D. Anderson, Medical Superintendent, Lachlan Park Hospital, New Norfolk, Tasmania.

S. J. CANTOR, D.P.M.
New Norfolk, Tasmania.

Out of the Past.

THE SANITARY ALPHABET.

[A leaflet issued by the Australian Health Society, Melbourne, 1881.]

A soon as you're up, shake blankets and sheet;
B etter be without shoes than sit with wet feet;
C hildren, if healthy, are active not still;
D amp beds and damp clothes will both make you ill.
E at slowly, and always chew your food well;
F reshen the air in the house where you dwell.
G arments must never be made to be tight;
H omes will be healthy if airy and light.
I f you wish to be well, as you do I've no doubt,
J ust open the windows before you go out;
K eep your rooms always tidy and clean,
L et dust on the furniture never be seen.
M uch illness is caused by the want of pure air,
N ow to open your windows be ever your care;
O ld rags and old rubbish should never be kept,
P eople should see that their floors are well swept.
Q uick movements in children are healthy and right;
R emember the young cannot thrive without light.
S oap and rough towels are good for the skin;
T emperance favours the body within.
U se your nose to find out if there be a bad drain,
V ery sad are the fevers that come in its train.
W alk as much as you can without feeling fatigue,
X erxes could walk for full many a league.
Y our health is your wealth, which your wisdom must keep;
Z eal will help a good cause, and the good you will reap.

Correspondence.

NOTIFICATION OF STAPHYLOCOCCAL INFECTIONS.

SIR: A Proclamation appeared in the *Government Gazette of the State of New South Wales*, Number 139, of November 25, 1960, requiring that the following notifiable infectious diseases be notified *direct* to the Secretary, Board of Health, under the provisions of subparagraph (i) of paragraph (a) of Subsection (1A) of Section 29 of the *Public Health Act*, 1902, as amended, in lieu of to the local authority as formerly:

Staphylococcal infections, to wit—

Staphylococcal mastitis.
Staphylococcal pneumonia, and all Staphylococcal diseases of infants under four weeks of age.

It will be appreciated if you can arrange to publicize this requirement for the information of medical practitioners at the next opportunity.

Yours, etc.,

Department of Public Health,
52 Bridge Street,
Sydney.
December 8, 1960.

G. LOUGHREY,
Secretary, Board of Health.

PHENYLBUTAZONE VERSUS THE STEROIDS.

SIR: Dr. Michael Kelly's erudite plea of November 19 for "Butazolidin" on the free list can be supported with lessons learned in a programme of preventive medicine in an oil refinery.

Five years ago the rule was: "No B.T.Z. in a patient over sixty unless the physiological age is at least five years less than the chronological age." Today the group which this rule ruled out are the only ones considered suitable for its use—they get it free. Yet the selection committee thereby admits its anti-rheumatic properties. It seems that somebody—perhaps the insurance companies—should get out figures showing the morbidity caused by rheumatism. How many thousands of Australians from 15 to 65 cannot do a full day's proper work because of it?

My interest is in preventing chronic disabling states, especially backache. Backache, with the time lost and money involved in treatment and claims for compensation, must be our newest important socio-industrial disease. Three or four years ago stiff backs were sent home to lie on a rigid bed for three to five days till the spasm disappeared. Such treatment seemed to reduce the amount of secondary sciatica. Today the programme is early reporting, a course of "Butazolidin" seldom exceeding 20 tablets, and gentle hyperextension exercises; 400 mg. of "Butazolidin" is given for first three days, then one night and morning. In recurrent cases a brace was ordered (Tom King type from Masson's, Melbourne). Such braces have become fewer since realizing their effectiveness is due to maintaining the lordosis normal to the patient at the lumbo-sacral joint.

Backache increases with sitting, and sitting has increased with television and motor-cars. Most television chairs used in Melbourne seem to be designed by short men with short tibias. Television chairs should be custom-built like sults used to be. No one who has had backache should sit in a chair lower than the distance from heel to knee.

Motor-car driving is more incriminated than television, because it is so often carried out in a state of tension, especially if one drives to work through a city. A small cushion at the back of the seat restores the sacrum to its "natural" relation to the fifth lumbar vertebra if the seat is low or the springs weak. Even aeroplane seats could have been designed by an angry young man type thwarted in orthopædic ambitions.

These are the important things. A glance at the history and follow-up cards will show minor reporting for "fibrositis" elsewhere. Questioning will usually elicit that father or a grandfather got backache and rheumatism. Confident prediction can be made that a number of grandchildren will get it too.

Low-back strain in industry is almost never due to an accident. It may appear with catastrophic suddennness, but careful inquiry elicits that the action causing it is part of the normal day's work, such action being usual to the job. The job did not change, but the patient did. This year in most cases he had become host to a Coxsackie virus or a mixture of them; one or more that invaded his nose and sinuses and stayed there for weeks then went to his alimentary tract and finally settled in the skeletal system, especially neck and lumbar region, where the spine is concave and movement most free. So many of these cases were seen that the "fibrositis" could be predicted in the gastro-enteritis stage.

In any year most backache cases presenting are getting a cold or getting over a cold when the incident occurs, and chronics can be taught to heed early twinges and carry out hyperextension exercises for a minute every hour wherever they may be. If the job involves a bending, cramped position, they must get up or get out and hyperextend, no matter how inconvenient.

These things are just as important as "Butazolidin", which is never continued till a cure results. No cure can ever be promised. From now on he is a member of the increasing group of "backache bores" and has to be taught to learn to live with it. Soluble aspirin is a safe drug to take over after the burst of "Butazolidin".

Some patients do not seem to be able to metabolize "Butazolidin". If it makes him sleepy or gives him indigestion, he should be advised to reduce it to one at night and stop as soon as possible.

Backache is just as much a stress disease as peptic ulcers, hypertension and coronary disease. Only the "tense trier" gets a backache. Industry and commerce and Australia need "tense triers". Why not give them "Butazolidin" on the free list, and stop them from becoming bad patients on boarded beds at home?

Yours, etc.,

C/o Standard-Vacuum Refining Company (Australia) Pty. Ltd.,
P.O., Box 15,
Williamstown, W.16,
Victoria.
December 8, 1960.

LEO J. GURRY.

GIANT HÆMANGIOMA WITH THROMBOCYTOPENIA.

SIR: I must thank Dr. Abbott for his criticism of my report dealing with the syndrome giant hæmangioma with thrombocytopenia, as it gives me an opportunity to enlarge on the discussion produced by my paper.

This is a rare syndrome, as I pointed out, and my article was concerned with the treatment of the large solitary subcutaneous cavernous angioma. As far as I know, the syndrome I reported has not occurred in association with strawberry marks or small lesions. In some cases, multiple angiomata and venous anomalies affect a whole limb producing hypertrophy, but no case of thrombocytopenia has been reported in association with such lesions.

The case for expectant treatment has been based on the behaviour of strawberry marks (Simpson,[1] Lister,[2] quoted by Dr. Abbott), but I think there is a danger in applying this outlook to large cavernous hæmangiomata.

My whole point was to bring this syndrome to the notice of the profession, as I do not think it is widely known, and further, to emphasize that it is not wise to wait till these lesions become rapidly progressive before instituting treatment. Surely Wilson's[3] report, which Dr. Abbott has quoted, illustrates this just as well as does my own. His first case had a swelling in the leg noted at eight days and which regressed at two weeks. If it had been excised at this stage, the baby might have survived. Instead, at seven weeks there was rapid enlargement with development of anæmia and thrombocytopenia. In spite of transfusions and radiation, the baby died in twenty days.

If Dr. Abbott's hypothetical team were constituted, I do not know what investigations it could carry out which would enable it to predict in which cases this dangerous syndrome associated with thrombocytopenia would develop. If my friend, Dr. Henry Sharp, were a member of the team, I think he would advocate early X-ray treatment for these lesions, but I do not think the small doses of X rays used in the treatment of nævi would have had much effect on Case I of my report. In any case, if a large lesion is treated by X rays, the patient should be kept under close supervision to ensure that regression is occurring. On a limb or the trunk, I would feel that the quickest and most certain method of eradication would be early excision, and it is mainly with lesions in these areas that the syndrome has so far been reported.

I do not regard this as mutilating surgery, but curative and possibly prophylactic. I do not believe that there is any place for expectant treatment in large subcutaneous lesions.

Yours, etc.,

235 Macquarie Street,
Sydney.
Undated.

T. Y. NELSON.

[1] *Lancet*, 1959, 2: 1059.
[2] *Lancet*, 1938, 1: 1429.
[3] *A.M.A. Arch. Derm.*, 1960, 81: 432.

Medical Matters in Parliament.

SENATE.

THE following extracts from *Hansard* relate to the proceedings of the Senate.

November 23, 1960.

Health.

SENATOR BROWN asked the Minister representing the Minister for Health, upon notice:

1. Is it a fact, as alleged in a recent Press statement, that Australia is a paradise for pill peddlers?

2. Is it a fact, as stated by Mr. T. A. C. Griffith, president of the New South Wales Institute of Hospital Administrators, that drug costs for Sydney hospitals have risen by 20 per cent. in the last two years, despite the fact that there has been little increase in the purchase price of drugs?

3. Is it a fact that there is a national tendency to live on drugs and that there is a colossal mounting of costs of the Federal Government's Pharmaceutical Benefits Scheme?

4. Is it a fact that an estimated 32,000,000 prescriptions will be written this financial year?

5. Is it a fact, as reported in *The Sydney Morning Herald* of 7th November, that hundreds of aboriginal children are suffering from malnutrition and that thousands of vitamin pills are being administered to them?

6. If so, is this malnutrition amongst aboriginal children due to bad and faulty diet?

7. Did the Commonwealth Scientific and Industrial Research Organization at one time study the diet of aborigines?

8. Because of the effect on health and economic waste due to lack of knowledge concerning proper diet and the growth of the pill and potion habit, will the Government consider the establishment, under the control of the Commonwealth Scientific and Industrial Research Organization, of a section totally devoted to the study of diet, pill-taking and potion-using habits of Australians in order to place the health of the people on a sound and scientific basis?

SENATOR HENTY: The Minister for Health has now furnished the following replies:

1. In my opinion, no.

2. Commonwealth liability being limited to drugs and medicines which are pharmaceutical benefits, my information on total drug usage in Sydney hospitals in the last two years is incomplete.

3. In my experience any tendency to "live on drugs" is confined to a very small proportion of our people and is certainly not nation-wide. A steep increase in the cost of pharmaceutical benefits did occur in recent years, but since the change in the scheme from the 1st March, 1960, the rate of increase has been arrested.

4. An estimated 32,000,000 prescriptions will be covered by the pharmaceutical benefits scheme in 1960-61.

5. With the changeover from native to European-type diet there is a risk of malnutrition amongst aborigines living under inadequately supervised conditions. Dosing with vitamin pills would be a poor substitute for diet adjustment.

6. Malnutrition is a feature of native pathology in some areas and is mainly attributable to habitual consumption of an unbalanced diet.

7. Diet of aborigines has been studied by the Nutrition Section of my department — not by the C.S.I.R.O. The problem is kept under constant observation by the Nutrition Section and guides for standard diets have been prepared and issued for the use of persons responsible for feeding or educating aborigines.

8. I do not think the honorable senator's proposal is one for the C.S.I.R.O. On the other hand, I am satisfied that the Nutrition Section of my department is giving and will continue to give good and adequate service in the study of Australian nutrition.

Notes and News.

Nuffield Dominion Travelling Fellowships in Medicine.

The Chairman of the Nuffield Foundation Australian Advisory Committee, Mr. Colin Syme, has announced that Nuffield Dominion Travelling Fellowships in Medicine for 1961 have been awarded to Dr. H. G. Burger and Dr. R. S.

DISEASES NOTIFIED IN EACH STATE AND TERRITORY OF AUSTRALIA FOR THE WEEK ENDED NOVEMBER 26, 1960.[1]

Disease.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Northern Territory.	Australian Capital Territory.	Australia.
Acute Rheumatism	..	4	3(1)	..	..	..	1	..	8
Amœbiasis	..	..	..	..	1(1)	..	..	..	1
Ancylostomiasis	1	..	1	..	..	..	4	..	6
Anthrax	..	..	..	..	..	..	..	..	..
Bilharziasis	..	..	..	..	..	..	..	..	..
Brucellosis	..	..	..	..	..	..	..	..	..
Cholera	..	..	..	..	..	..	..	..	..
Chorea (St. Vitus)	..	..	..	..	..	1	..	..	1
Dengue	..	..	..	..	..	..	..	..	..
Diarrhœa (Infantile)	3	14(13)	1(1)	..	..	2	..	..	20
Diphtheria	..	..	..	..	..	..	..	..	..
Dysentery (Bacillary)	..	..	1	6(2)	..	1	..	..	8
Encephalitis	..	..	..	..	..	..	..	..	..
Filariasis	..	..	..	..	..	..	..	..	..
Homologous Serum Jaundice	..	..	..	..	..	..	..	..	..
Hydatid	..	..	..	..	1	..	..	..	1
Infective Hepatitis	186(66)	86(43)	16(5)	53(32)	12(9)	2	1	2	358
Lead Poisoning	..	..	..	..	..	..	..	..	..
Leprosy	..	..	..	..	2	..	..	..	2
Leptospirosis	..	..	1(1)	..	..	..	..	..	1
Malaria	..	..	1	..	..	..	1	..	2
Meningococcal Infection	..	1(1)	..	..	..	..	..	..	1
Ophthalmia	..	..	..	..	..	..	..	3	3
Ornithosis	..	..	..	..	..	..	..	..	..
Paratyphoid	..	..	..	..	..	..	..	..	..
Plague	..	..	..	..	..	..	..	..	..
Poliomyelitis	1	3(2)	..	..	..	5(4)	..	..	9
Puerperal Fever	..	..	..	..	..	..	..	..	..
Rubella	..	21(11)	2(2)	3	3(2)	..	..	..	29
Salmonella Infection	..	..	..	1	2(2)	..	..	..	3
Scarlet Fever	2(1)	13(11)	2	1(1)	1	..	..	..	19
Smallpox	..	..	..	..	..	..	..	..	..
Tetanus	..	..	..	..	..	..	..	..	..
Trachoma	..	..	..	..	5	..	..	..	5
Trichinosis	..	..	..	..	..	..	..	..	..
Tuberculosis	32(19)	10(7	10(6)	7(5)	13(6)	2(1)	1	2	77
Typhoid Fever	..	..	..	..	..	..	..	..	..
Typhus (Flea-, Mite- and Tick-borne)	..	..	..	..	..	..	..	..	..
Typhus (Louse-borne)	..	..	..	..	..	..	..	..	..
Yellow Fever	..	..	..	..	..	..	..	..	..

[1] Figures in parentheses are those for the metropolitan area.

Gye. Dr. Burger, who is E. H. Flack Research Fellow in the Diabetic and Metabolic Unit, Alfred Hospital, Melbourne, will undertake research into the steroid abnormalities in hirsutism and into aspects of aldosterone metabolism and antagonism at the Middlesex Hospital, London, under Dr. J. D. N. Nabarro. Dr. Gye, who is Registrar to the Professor of Surgery at Royal Prince Alfred Hospital, Sydney, will work in Professor Pennybacker's unit at Oxford, to obtain further experience in clinical and investigative neurosurgery.

Nuffield Foundation Travelling Fellowship for General Practitioners.

Advice has been received from the Nuffield Foundation in London that a travelling fellowship for 1961 has been awarded to Dr. John Charleton Yeatman, of Unley Park, South Australia.

Medical-Scientific Coordinator for Lederle Laboratories.

Dr. Alan Innes-Brown, of Sydney, has been appointed medical-scientific coordinator for Lederle Laboratories.

Naval, Military and Air Force.

APPOINTMENTS.

THE following appointments, changes, etc., are published in the *Commonwealth of Australia Gazette*, No. 82, of December 8, 1960.

ROYAL AUSTRALIAN AIR FORCE.

Permanent Air Force.

Medical Branch.

The probationary appointment of Flight Lieutenant M. J. Hoare (0310780) is confirmed.

The following Flight Lieutenants are appointed to a permanent Commission, 1st August, 1960:—R. J. L. Tebbutt (0211575), K. R. Fisher (0218481).

The resignation of Flight Lieutenant R. F. Greenhill (019699) is accepted, 7th October, 1960.

Robin Sproul McFarlane (0310792) is appointed to a short-service commission on probation for a period of twelve months, 6th September, 1960, with the rank of Flight Lieutenant.

Air Force Reserve.

Medical Branch.

The following former officer is appointed to a commission, 12th August, 1960, with the rank of Flight Lieutenant:—P. A. Mead (0310771).

The appointment of Flight Lieutenant P. J. Phillips (257982) is terminated, 24th September, 1960.

The following former officer is appointed to a commission 1st April, 1960, with the rank of Flight Lieutenant:—K. W. Prichard (055804). Alan Tilney Cotton (043365) is provisionally appointed to a commission, 4th December, 1960, with the rank of Pilot Officer.

Flight Lieutenant B. McC. O'Brien (257990) is promoted to the temporary rank of Squadron Leader, 31st October, 1960.

Nominations and Elections.

THE undermentioned have applied for election as members of the New South Wales Branch of the British Medical Association:

Ovedoff, David Leopold, M.B., B.Ch., 1940 (Univ. Witwatersrand), M.R.C.P., 1948 (Univ. London), 201 Hopetoun Avenue, Vaucluse.

Nemes, Arpad, M.D., 1929 (Univ. Szeged), licensed under Section 17 (2B), *Medical Practitioners Act*, 1938-1958, c/- P. H. D. Lorengau, Manus Island, T.N.G.

Deaths.

THE following deaths have been announced:

JOYCE.—Arthur Herbert Joyce, on December 7, 1960, at Melbourne.

MCCULLAGH.—Richard George James McCullagh, on December 7, 1960, at Melbourne.

GRUN.—Ernest Grun, on December 9, 1960, at Double Bay, New South Wales.

Diary for the Month.

1961.

JANUARY 10.—New South Wales Branch, B.M.A.: Quarterly Meeting of Council.
JANUARY 13.—Queensland Branch, B.M.A.: Council Meeting.
JANUARY 16.—Victorian Branch, B.M.A.: Finance Sub-Committee.
JANUARY 17.—New South Wales Branch, B.M.A.: Executive and Finance Committee.
JANUARY 19.—Victorian Branch, B.M.A.: Executive Meeting of Branch Council.
JANUARY 24.—New South Wales Branch, B.M.A.: Medical Politics Committee.

Medical Appointments: Important Notice.

MEDICAL PRACTITIONERS are requested not to apply for any appointment mentioned below without having first communicated with the Honorary Secretary of the Branch concerned, or with the Medical Secretary of the British Medical Association, Tavistock Square, London, W.C.1.

New South Wales Branch (Medical Secretary, 135 Macquarie Street, Sydney): All contract practice appointments in New South Wales.

South Australian Branch (Honorary Secretary, 80 Brougham Place, North Adelaide): All contract practice appointments in South Australia.

Editorial Notices.

ALL articles submitted for publication in this Journal should be typed with double or treble spacing. Carbon copies should not be sent. Authors are requested to avoid the use of abbreviations, other than those normally used by the Journal, and not to underline either words or phrases.

Authors of papers are asked to state for inclusion in the title their principal qualifications as well as their relevant appointment and/or the unit, hospital or department from which the paper comes.

References to articles and books should be carefully checked. In a reference to an article in a journal the following information should be given: surname of author, initials of author, year, full title of article, name of journal, volume, number of first page of article. In a reference to a book the following information should be given: surname of author, initials of author, year of publication, full title of book, publisher, place of publication, page number (where relevant). The abbreviations used for the titles of journals are those of the list known as "World Medical Periodicals" (published by the World Medical Association). If a reference is made to an abstract of a paper, the name of the original journal, together with that of the journal in which the abstract has appeared, should be given with full date in each instance.

Authors submitting illustrations are asked, if possible, to provide the originals (not photographic copies) of line drawings, graphs and diagrams, and prints from the original negatives of photomicrographs. Authors who are not accustomed to preparing drawings or photographic prints for reproduction are invited to seek the advice of the Editor.

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CONTENTS

ORIGINAL ARTICLES— Page

The Sir Richard Stawell Oration: Infectious Enthusiasm, by Sir William Upjohn 1025

Some Aspects of Alcohol in Body Fluids: Part III. Study of Alcohol in Blood in Different Parts of the Body, by N. E. W. McCallum and J. G. Scroggie 1031

Antihistamines and the Calcium Carbimide-Alcohol Reaction, by J. M. Collins and L. M. Brown 1032

A Study of Subdural Hæmatoma, by Douglas Miller and K. F. Bleasel 1034

REVIEWS—

The Heart in Industry 1037

Practical Clinical Management of Electrolyte Disorders 1037

NOTES ON BOOKS—

A Pocket Book of Proprietary Drugs 1037

Notification of Communicable Diseases 1038

Notes on Injections for Nurses 1038

BOOKS RECEIVED 1038

LEADING ARTICLES—

Medical Services and Medical Education in Papua and New Guinea 1039

CURRENT COMMENT—

Culdoscopy 1040

Treatment of Tuberculosis in Children 1040

"Brave and Bloody Work" 1041

ABSTRACTS FROM MEDICAL LITERATURE— Page

Ophthalmology 1042

Oto-Rhino-Laryngology 1043

ON THE PERIPHERY—

Looking Backwards 1044

OUT OF THE PAST 1045

CORRESPONDENCE—

Notification of Staphylococcal Infections 1045

Phenylbutazone Versus the Steroids 1046

Giant Hæmangioma with Thrombocytopenia .. 1046

MEDICAL MATTERS IN PARLIAMENT—

Senate 1047

DISEASES NOTIFIED IN EACH STATE AND TERRITORY OF AUSTRALIA 1047

NOTES AND NEWS 1047

NAVAL, MILITARY AND AIR FORCE—

Appointments 1048

NOMINATIONS AND ELECTIONS 1048

DEATHS 1048

DIARY FOR THE MONTH 1048

MEDICAL APPOINTMENTS: IMPORTANT NOTICE 1048

EDITORIAL NOTICES 1048

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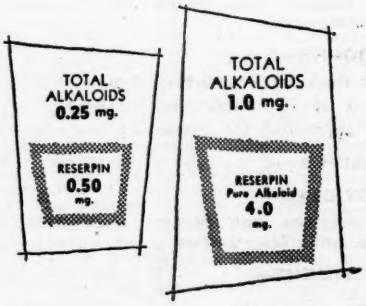

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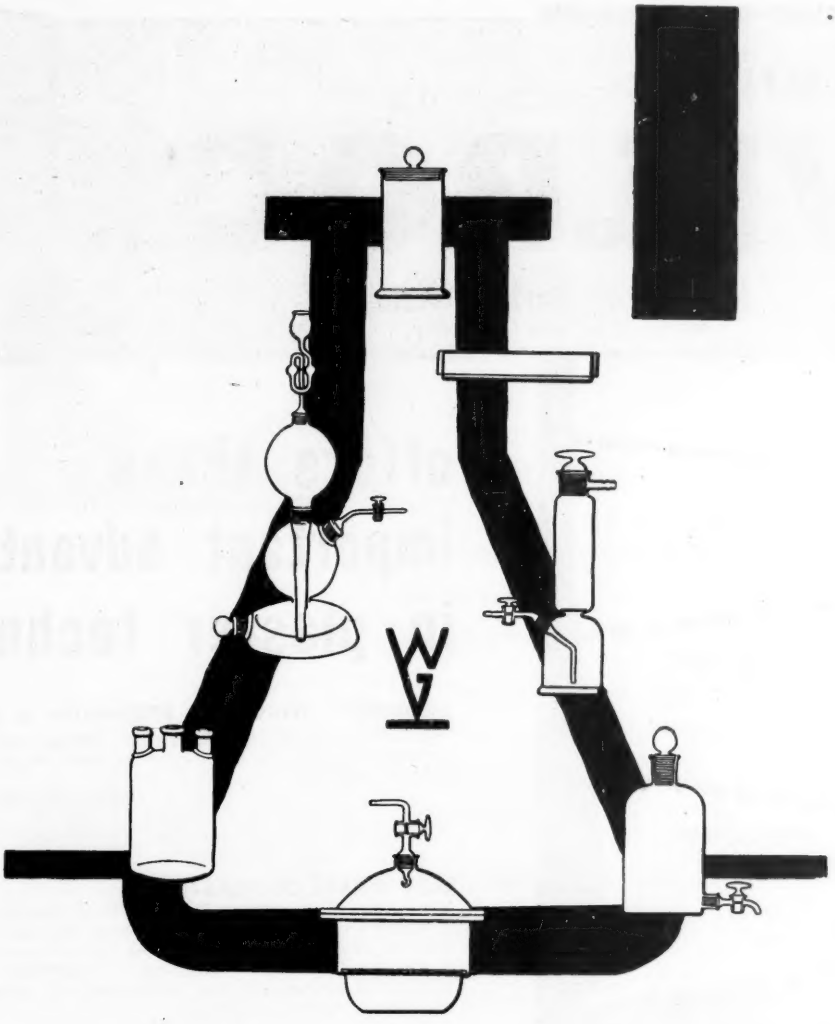

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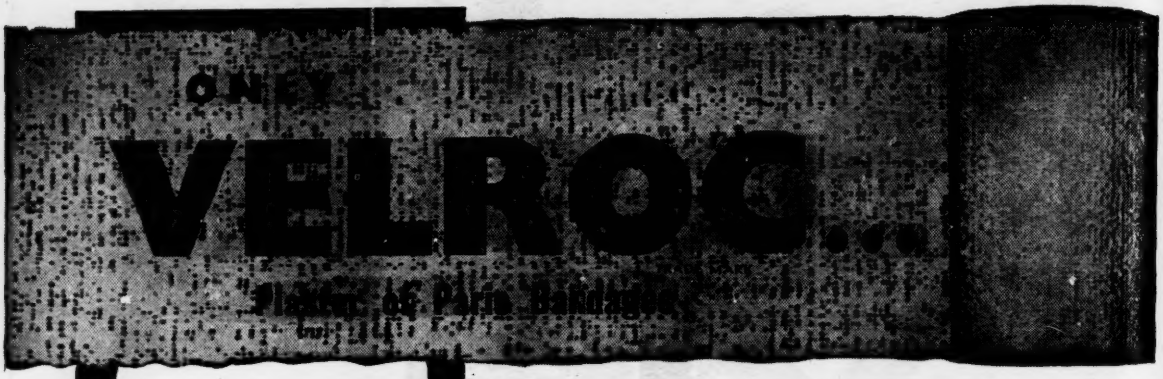

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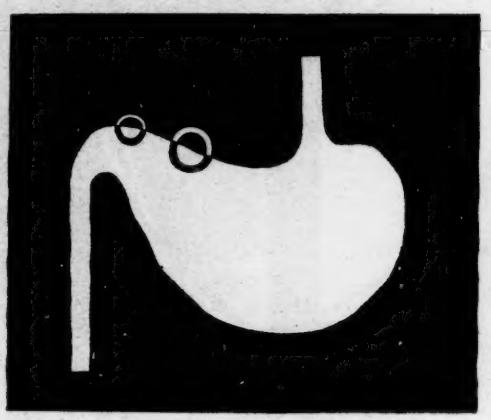

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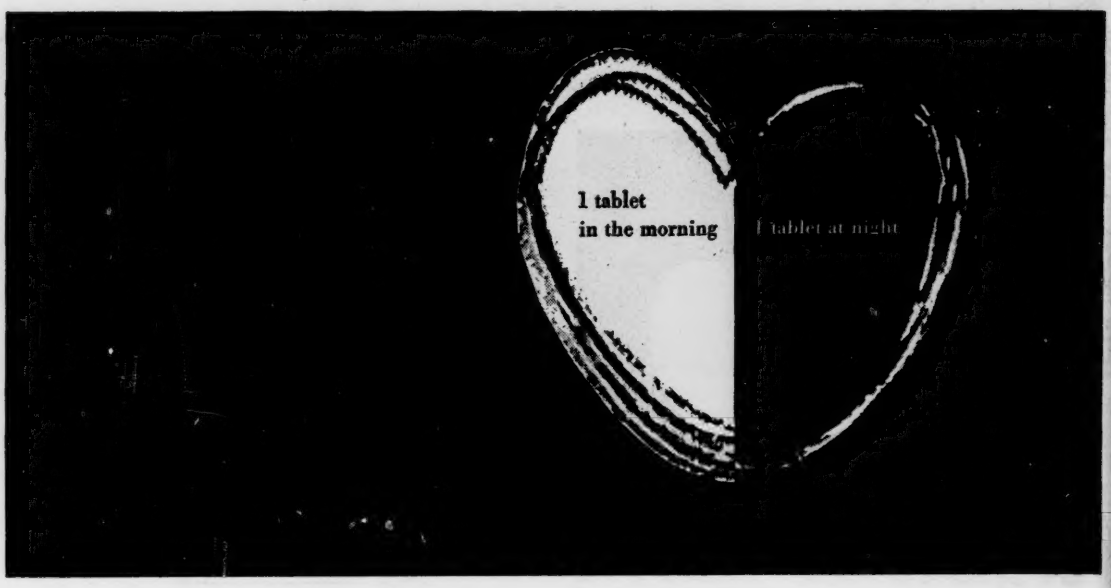

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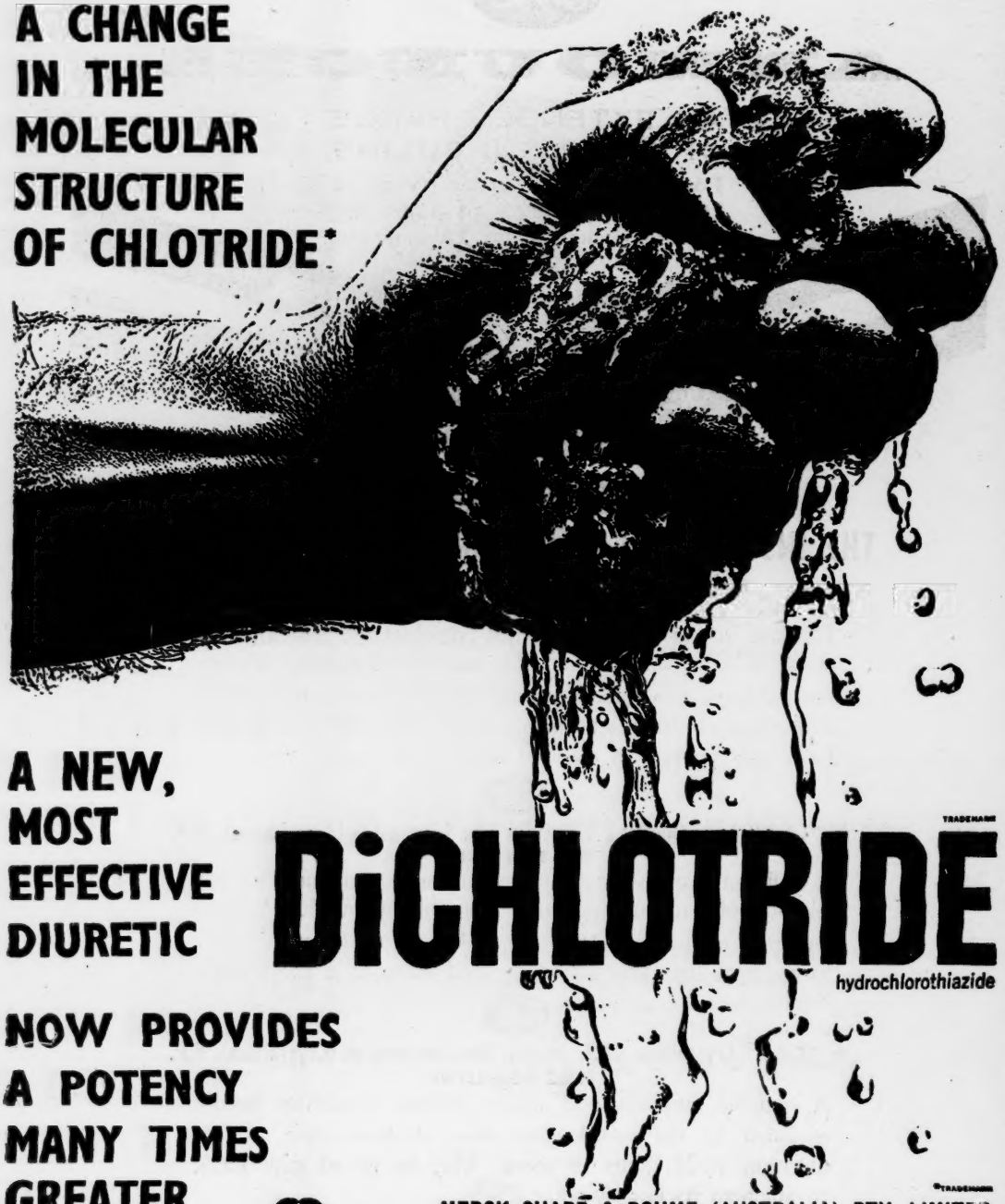

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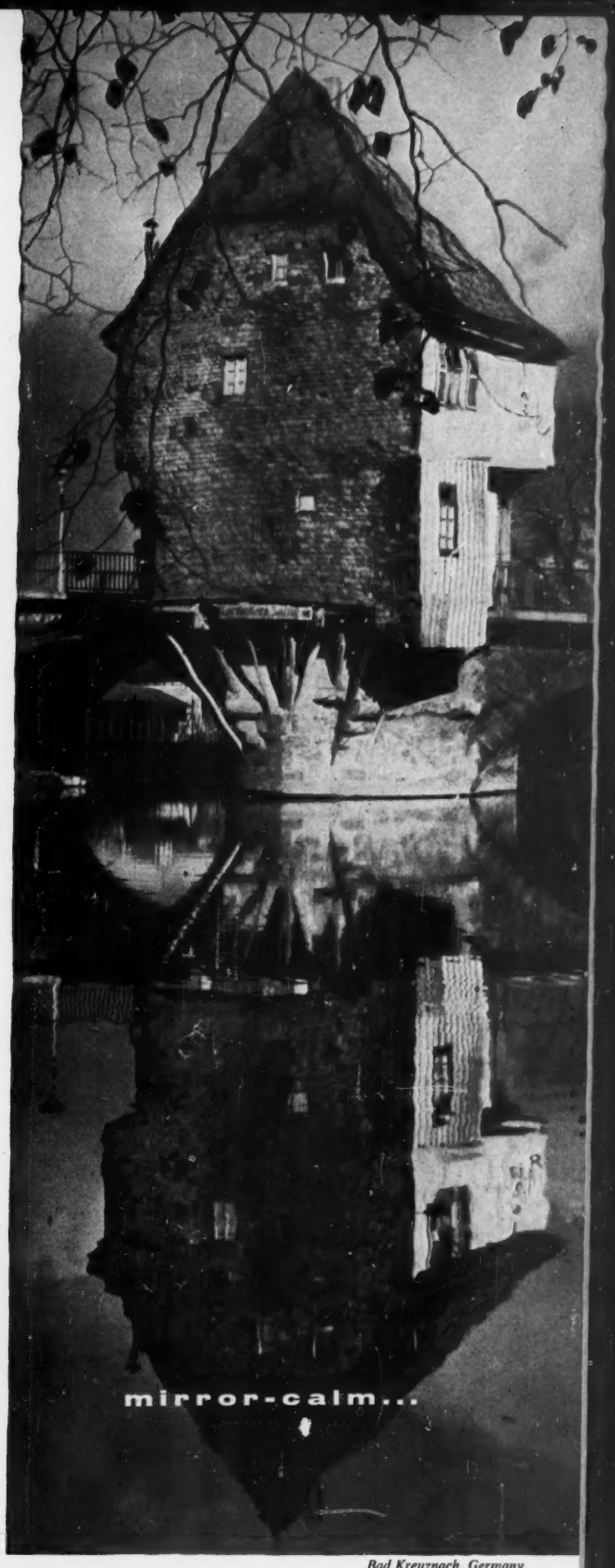

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OPPORTUNITY for energetic, enterprising, well-qualified G.P., N.S.W. coastal town in rich, rapidly expanding district. Swimming, fishing, golfing facilities available. Total cost £800. Finance arranged if required. Rooms and residence for rental. Full hospital services. Reply No. 486 c.o. this office.

COLLINS STREET, MELBOURNE.

Details concerning the sale of the ophthalmic practice of the late Dr. Arthur Joyce, 55 Collins Street, Melbourne, are available from:

BRITISH MEDICAL AGENCY,
81 Collins Street, Melbourne.
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PROFESSIONAL Rooms and Residence available at moderate rental; coastal town, wealthy district, 75 miles from Sydney: rapidly expanding area, wonderful opportunity for progressive G.P. with limited capital to establish practice. Full hospital facilities. Reply No. 487 c.o. this office.

FOR SALE. General Practice, South Coast, N.S.W. G.C.T., £8000. Excellent hospital facilities. Residence with surgery attached. Write No. 461 c.o. this office.

SURGEON or General Practitioner with surgical ability required to join 2-man partnership, mid-North Coast (N.S.W.), after preliminary assistantship. Protestant preferred. Excellent conditions. Accommodation available. Salary £2600 per year. Car allowance £3 per week. Reply Box 481 c.o. this office.

AN unopposed general practice, established over 60 years, is for sale. Coastal area, 3 hours from Sydney. All hospital facilities. Comfortable home. Gross income over £6000. For further details write No. 467, this office.

CENTRAL WEST, N.S.W. Subsidized unopposed practice with dispensary in a prosperous grazing district. G.T. £4500, furnished house free, 10-bed hospital with good theatre. £1000 drug stock and surgery furnishings included. Write No. 378 c.o. this office.

FOR SALE. Lock-up practice in Sydney bayside inner suburb. Modern luxuriously appointed rooms in commercial centre in fast-growing high-density area. No mids. or surgery at present. Grossing £4000 p.a. Best offer. Terms available. No. 495 c.o. this office.

FOR SALE. Solo unopposed general practice, central western, N.S.W. G.C.T. £9500. Residence, all electric, with surgery attached. Rent £6 per week. Goodwill £3000. Write to No. 492 c.o. this office.

LEASE of practice and furnished house in congenial two-doctor western town. Short or long term at £8 rental. Clear more than locum wages with wonderful opportunities to expand. Good hospital. Early reply to Box 47, P.O., Nyngan (N.S.W.).

POSITIONS WANTED

EXPERIENCED G.P., 36, married, 1 child, M.B., B.S., Durham, D.R.C.O.G., in private practice, Kenya, requires assistantship with view. Emphasis on obstetrics and anæsthetics. Box No. 449 c.o. this office.

OPHTHALMOLOGIST (D.O., London), recently returned from England seeks locum work, preferably Sydney or suburbs. Three years' general training, Royal Newcastle Hospital, N.S.W., one year general practice. Six months, Eye Department, Radcliffe Infirmary, Oxford, approx. two years Bristol Eye Hospital, United Kingdom. Available early New Year. Reply No. 485 c.o. this office.

LOCUM available from early February to mid-May, 1961, metropolitan area, Sydney. Married, live in. Own car. General hospital, obstetric and pædiatric experience. Write No. 497 c.o. this office.

PART-TIME ASSISTANTSHIP wanted in St. George area (Sydney). Ring LJ 7321, after 7.30 p.m.

WIDELY-Experienced Queensland graduate, four years' hospital experience, two as registrar, requires assistantship, view partnership, in Brisbane. Box No. 494 c.o. this office.

POSITIONS VACANT

ASSISTANTSHIP, six months, view partnership, North Coast. Partner leaving for postgraduate study. Four-man established group. Petrol oil, free interim unfurnished house. £50 per week. Large hospital with all ancillary services. Write No. 488 c.o. this office.

ASSISTANT, married, with view, for third partner. £50 p.w. plus £5 car. Rent-free three-bedroom home. Enormously expanding area. Large pædiatric section. Western Suburbs, forty minutes from Sydney. Write No. 445 c.o. this office.

ASSISTANT, view partnership, large country town, 100 miles from Sydney. Good hospital, excellent opportunities. £50 per week. £5 car allowance. Accommodation, married or single. Write Box 471 c.o. this office.

WANTED, Assistant, view partnership, for Sydney suburban group practice. Man with surgical ability preferred as new partner would have opportunity to do surgery for group. Salary £60 p.w. plus rent-free flat. Pleasant working conditions and rostered time off. Write No. 489 c.o. this office.

LOCUM required, January 16th, two weeks, upper North Shore. Prefer live out. 50 gns. plus allowances. JU 1535 (Sydney).

POSITIONS VACANT—Contd.

YALLOURN MEDICAL AND HOSPITAL SOCIETY.

Applications are invited from suitably qualified medical practitioners, preferably under the age of 35 years, for a position of

MEDICAL OFFICER

to the above Society. Duties would be those of a general practitioner and would be carried out in co-operation with a team of seven other doctors. Salary range £2995 to £3470, plus a limited right of private practice consisting of Workers' Compensation, Repatriation, Age Pensioners and Third Party insurance cases, with access to a 150-bed hospital with 50 medical, 50 surgical and 50 maternity beds. Three weeks' annual leave plus provision for two weeks' additional leave, non accumulative, for recognized post-graduate course, and regular stand-down off-duty includes alternate week-ends free and a half day each week. Unfurnished house available on rental basis. Further details available on request. Applications in writing (or person) stating age, marital status, qualifications and experience and approximate date duties could commence to the Secretary, Yallourn Medical and Hospital Society, Box 17, Yallourn, Victoria.

L. H. LAMBERT,
Secretary.

COASTAL Country Group Practice, G.C.T. £30,000 p.a., within 2 hours of Sydney by rail or road, requires assistant with view to purchasing 25% share. G.W. £3750. Finance available. Salary as assistant, £50 per week, plus rent-free furnished house and car expenses. Reply Box No. 460 c.o. this office.

COMPETENT G.P. LOCUM for Hunter Valley area from January 15th-29th. £60 per week and everything provided. Married or single. Write Box No. 470 c.o. this office.

LOCUM for 2 weeks from 13th January, 1960, Ryde, Sydney, £65 per week. Box No. 476 c.o. this office.

PHYSICIAN wanted as Assistant in Sydney Northern Suburbs practice. Minimum salary £3000, higher for physician with post-graduate degree. A partnership will be offered after a satisfactory 12 months. Box No. 475 c.o. this office.

LOCUM TENENS in one-man Sydney practice for two weeks from January 21st. Suit married man. Own car. Live in, 60 guineas, plus car allowance, plus petrol and oil. Phone 88 2353.

ASSISTANT, view Partner, expanding practice, Sydney, upper North Shore. Male about 30 preferred. Salary £50 per week, plus usual allowances. Please reply Box 490 c.o. this office.

LOCUM wanted for two weeks from January 15, 1961. Near Western Suburbs. To be married and live in. Own car necessary. Salary £50 plus usual allowances. Ring LM 4034 (Sydney).

DEPARTMENT OF PUBLIC HEALTH.

DIVISION OF PSYCHIATRIC SERVICES.

MEDICAL OFFICERS.

Applications are invited for appointments as Medical Officer (Male or Female) in Metropolitan and Country Mental Hospitals. Applications for appointment to a selected hospital will be accepted and may be on a temporary basis if so desired. Appointees will be encouraged to undertake the Diploma of Psychological Medicine of the University of Sydney.

Salaries are in accordance with the following scale:

If less than 2 years' post-graduate experience £1880 (male), £1765 (female).

With 2 years' and less than 4 years' post-graduate experience £2110 (male), £1995 (female).

With 4 years' and less than 5 years' post-graduate experience £2210 (male), £2095 (female).

With 5 years' and less than 6 years' post-graduate experience £2310 (male), £2195 (female).

With 6 years' and less than 7 years' post-graduate experience £2430 (male), £2315 (female).

With 7 years' or more post-graduate experience £2550 (male), £2435 (female).

A female appointee receives increments of salary in January of each year until 1st January, 1963, when male and female rates become equal.

Appointment as Psychiatrist will follow qualification at the Diploma of Psychological Medicine, with salary at £3175 (male), £3060 (female).

Good opportunities exist for appointment to senior clinical and administrative positions.

Accommodation is available at rental of £26 10s. p.a. Full board is also available. Two days per week roster leave. Four weeks per annum recreation leave.

Enquiries: B 056, Ext. 922.

Application to the Public Service Board, 19 O'Connell Street, Sydney.

THE UNIVERSITY OF SYDNEY.

NUFFIELD ASSOCIATE PROFESSOR OF ANÆSTHESIA.

Applications are invited for the position of Nuffield Associate Professor of Anæsthesia in the Faculty of Medicine. The salary will be £3300 per annum, plus cost-of-living adjustments (at present £29 p.a.) and will be subject to deductions under the State Superannuation Act. Under the Staff Members' Housing Scheme in cases approved by the University and its Bankers, married men may be assisted by loans to purchase a house. Applications, giving the names of three referees, should be forwarded to reach the undersigned, from whom further information may be obtained, not later than 3rd March, 1961.

M. A. TELFER,
Registrar.
Sydney,
November, 1960.

PSYCHIATRIC CENTRE, NORTH RYDE, N.S.W.

SURGICAL REGISTRAR.

Salary £1880 range £2534. Commencing rate according to qualifications and experience. Applications are invited from medical graduates for the above position. Possession of a higher degree in surgery would be an advantage in which case salary upon appointment would be £3175. Progression to specialist rates is in accordance with the relevant salary Agreement. The present rates are: Specialist £3371; Junior Specialist £3511; Senior Specialist £3690. Appointee will be in charge of operating theatres at the Centre, which are newly built to undertake general surgical treatment of patients in the Division of Psychiatric Services. Position is resident, and a new brick cottage is provided at low rental. Apply Public Service Board, 19 O'Connell Street, Sydney, by 6th January.

COMMONWEALTH OF AUSTRALIA.

DEPARTMENT OF HEALTH.

Applications are invited for a visiting Ear, Nose and Throat Specialist at the Commonwealth Acoustic Laboratory:

(a) 41-49 King William Street, Adelaide.

(b) 55 William Street, Perth.

(Original appointment to be for a period of three (3) years.)

Fees: Senior Specialist, £4 4s. for first hour, then £1 1s. for each half-hour.

Duties: Inspection of deaf school and pre-school children.

Applications, stating age, qualifications and experience to the Director, Commonwealth Acoustic Laboratories, Customs House, Circular Quay, Sydney, by 28th January, 1961.

UNIVERSITY OF MELBOURNE.

SENIOR LECTURER IN CLINICAL BIOCHEMISTRY.

Applications are invited for the position of Senior Lecturer in Clinical Biochemistry. The Senior Lecturer's duties will be chiefly with medical students and it is essential that he should be familiar with modern methods in clinical biochemistry. It is also desirable that he should hold a medical qualification.

The salary range is £2480 per annum to £2950 per annum or, if medically qualified, £2600 per annum to £3250 per annum. Commencing salary will be fixed according to qualifications. Superannuation similar to F.S.S.U. in Great Britain will be provided.

Conditions of appointment may be obtained from the Registrar, University of Melbourne, Parkville, N.2, Victoria, and applications should reach him by 4th February, 1961.

F. H. JOHNSTON,
Registrar.
13/12/60.

THE UNIVERSITY OF NEW SOUTH WALES.

PROFESSOR OF MICROBIOLOGY.

The University of New South Wales invites applications for appointment to the newly established Chair of Microbiology in the School of Biological Sciences.

As Head of the Department, the successful applicant will be expected to promote development of all fields of Microbiology and of post-graduate activities. The Department at present conducts research in both pure and applied fields of microbiology, and accepts students for the Master's degree, and for the Doctorate of Philosophy.

The Department offers microbiology as the major subject for pass and honours degrees in science or in applied biology, as well as instructing students in the Faculty of Applied Science. The University has recently established a Faculty of Medicine and, commencing in 1963, the Department will teach microbiology to undergraduates in the medical course, including the course for the degree of B.Sc. (Med.).

Salary will be not less than £4279 p.a.

Subject to the consent of the Council of the University, professors may engage in a limited amount of higher consultative work.

The successful applicant will be eligible, subject to satisfactory medical examination, to join the superannuation scheme which provides a maximum pension of £2184 p.a.

Professors are eligible for six months' study leave on full salary after three years of service, or twelve months after six years of service.

The University reserves the right to fill the position by invitation.

With the approval of the University and its bankers, married men may be assisted by loans to purchase a home.

Further particulars concerning conditions of appointment may be obtained from the Bursar, The University of New South Wales.

Applications should be typed and forwarded together with the names of three referees to the Appointments Section, Box 1, Post Office, Kensington, N.S.W., before 23rd January, 1961.

J. O. A. BOURKE,
Bursar.

HONG KONG. HONG KONG.

SCIENTIFIC OFFICER (MEDICAL)

who would be responsible to the Government Pathologist, required for work in Biochemistry Section of Government Institute of Pathology and for duties connected with training of technologist. Candidates must possess honours degree in Science (Biochemistry) and have had one year's post-graduate experience in a hospital clinical biochemistry laboratory. Appointment on permanent basis with pension (non-contributory). Salary scale £1350 to £2865 p.a. (stg.). Income tax at local rates. Government quarters normally provided at nominal rental. Passages for Officer, wife and children not exceeding five passages in all. Application forms from Professor Z. Cowen, University of Melbourne, Parkville, N.2.

POSITIONS VACANT—Contd.

ASSISTANT wanted for Sydney practice with good potential. Suit young man wishing to establish himself. Commencing salary £2236 plus bonus. Write particulars to No. 496 c.o. this office.

LARGE, rapidly expanding, 3-man suburban general practice, central north coast, requires fourth partner. House available. Preliminary assistantship as required by mutual agreement. Fifty (50) guineas plus allowances. Special interests welcomed. Write No. 493 c.o. this office.

RELIEVING RADIOGRAPHER wanted for two or three weeks from January 16, 1961, Sydney suburb. £28 p.w. Reply No. 498 c.o. this office.

LOCUM wanted from 10th April to about end of third week in August, 1961. Experienced, married Australian graduate preferred. Salary £50 and car allowance and free flat or living allowance if living within reasonable range of north side Sydney practice. Apply No. 450 c.o. this office.

HOSPITAL APPOINTMENTS

THE VICTORIAN EYE AND EAR HOSPITAL, EAST MELBOURNE, C.2.

Applications, closing on 7th February, 1961, are invited for the position of

HOUSE SURGEON

for the E.N.T. Department, to commence on the 1st April, 1961. Commencing salary is £1650 per annum.

Applicants should have two years' general clinical experience. Previous training in Oto-rhino-laryngology is not essential, but preference will be given to those persons who have obtained the Part 1 F.R.A.C.S. or Part 1 D.L.O.

Further particulars and application forms are available from the Medical Superintendent, Dr. K. G. Howsam.

C. G. BAIRD,
Manager.

THE ROYAL NORTH SHORE HOSPITAL OF SYDNEY.

HONORARY MEDICAL STAFF.

Applications are invited for appointment to the following position on the Honorary Medical Staff of the above hospital:

HONORARY OPHTHALMIC SURGEON

the appointment being for the remainder of the current term, i.e., to 31st July, 1962.

In the event of an Assistant Ophthalmic Surgeon on the staff being appointed, there will be a vacancy in this classification.

Closing date: January 16, 1961.

WALLACE FREEBORN,
General Medical Superintendent.

TOOWOOMBA HOSPITALS BOARD, QUEENSLAND.

TOOWOOMBA HOSPITAL.

MEDICAL OFFICERS.

Applications are invited to fill vacancies which will exist, as Resident Medical Officers at the Toowoomba Hospital for 1961.

Salary classifications:
1st year, £1620.
2nd year, £1835.
3rd year, £2050.
4th year, £2300.

Plus basic wage adjustment at 31st October, 1960, £13.

Staff quarters available for single officer only. Officer living out receives an extra allowance of £100 p.a.

Full-time medical staff comprises: Medical Superintendent, Senior Resident Medical Officer, and six Resident Medical Officers.

Specialists in general surgery, medicine, radiology, E.N.T., ophthalmology, pædiatrics, gynæcology, obstetrics, neurology and psychiatry visit the Toowoomba Hospital on sessional basis.

In-patients daily average: general 170, maternity 30, thoracic 40, out-patients 130.

Applicants to give full particulars of past experience, marital status, age, and also attach certified copies of testimonials held. Termination of service, one month's notice on either side.

Applications to be submitted to the Secretary, Hospitals Board, Toowoomba.

J. SEAWRIGHT,
Secretary Manager.

THE BOARD OF MANAGEMENT, ALFRED HOSPITAL, COMMERCIAL ROAD, PRAHRAN, S.1, VICTORIA.

Invites applications from duly qualified medical practitioners for the following appointments:

HONORARY RADIOLOGISTS
(2 vacancies).

The appointment in the first instance will be for the period ending 30th June, 1961.

Applications must be submitted on the prescribed form available at the hospital. Personal canvass will disqualify.

Closing date for receipt of applications is 30th January, 1961.

G. B. CANHAM,
Acting Manager.
13th December, 1960.

ST. VINCENT'S HOSPITAL, SYDNEY.

Applications closing 23rd January, 1961, are invited for the following position on the medical staff.

RADIOLOGICAL REGISTRAR.

Graduates of at least two years' hospital experience. The position is full time and meets the requirements of the Diploma course. Terms of appointment one year, eligible for reappointment. Salary at the rate of £1674 per annum and live out.

THE HORNSBY AND DISTRICT HOSPITAL.

Applications on the prescribed form are invited for the appointment of Honorary Urologist for the remainder of the three-year term, which commenced September 1, 1958. Closing date, January 13, 1961, with the undersigned.

F. A. NAVEAU, Secretary and Chief Executive Officer, Palmerston Road, Hornsby, Sydney.

TASMANIA

Mersey General Hospital

RESIDENT MEDICAL OFFICERS

Applications are invited for the positions of Resident Medical Officers.

Single and married quarters are available.

The salary is under review but will not be less than £1494 per annum. Superannuation benefits available.

A modern hospital will be opened at Latrobe shortly after Christmas and experience is available in General Medicine, Surgery, Out-Patients and Obstetrics.

Applications, supported by details of training and experience, should be addressed to the Surgeon Superintendent, Mersey General Hospital, Box 41, Latrobe, Tasmania.

GLADSTONE HOSPITALS BOARD.

RESIDENT MEDICAL OFFICER.

Applications are invited from registered medical practitioners for the abovementioned position at the Gladstone Hospital, Queensland.

Salary classification:
First year, £1620.
Second year, £1835.
Third year, £2050.
Fourth year, £2300.

Basic wage adjustment, £13 p.a.

The above salaries are subject to Basic Wage adjustment, at present £72 10s. p.a.

Comfortable cottage provided, single or married person—free board, single appointee.

Appointment terminable by one month notice on either side.

Please forward application stating age, marital status, qualifications and experience to Secretary, P.O. Box 142, Gladstone, Queensland, advising also date available to commence duties.

WAGGA WAGGA BASE HOSPITAL, N.S.W.

Applications are invited for

RESIDENT MEDICAL OFFICER,

1st, 2nd or 3rd Year Graduate.

Salary in accordance with fixed agreement. D.A. 153. Excellent experience offering. One other Resident and Medical Superintendent on the staff. House available for married applicant.

Apply to A. B. SADLEIR, Chief Executive Officer and Secretary.

THE GRIFFIN HOSPITAL, DERBY, CONNECTICUT, U.S.A.

ROTATING INTERNSHIPS FOR 1961-1962.

Fully accredited 186-bed general hospital with active teaching program. Approved by A.M.A. Located near New York City. ECFMG Certificate required. Stipend: $200 a month, plus room and board. Travel allowance $300. Write, Director of Medical Education.

OMEO AND DISTRICT HOSPITAL, VICTORIA.

MEDICAL SUPERINTENDENT required in January, 1961, for a fully equipped 19-bed hospital. Unopposed private practice available with house and surgery. Population of district approximately 2500. Successful applicant will be paid an honorarium of £300 p.a. Applicants should state qualifications, experience, age, marital status and date on which duties can be commenced.

P. CRISP, Secretary and Manager.

FAIRFIELD DISTRICT HOSPITAL.

HONORARY MEDICAL STAFF.

Applications, addressed to the Secretary and closing at 5 p.m. on Wednesday, 25th January, 1961, are invited from legally qualified medical practitioners for the following positions, for the balance of term until the 1st November, 1962:

Honorary Relieving Pathologist,
Honorary Relieving Urological Surgeon,
Honorary Relieving E.N.T. Surgeon,
Honorary Relieving Ophthalmic Surgeon,
Honorary Relieving Gynæcologist, and
Honorary Consultant Psychiatrist.

Application forms and further information may be obtained, on request, from the undersigned.

J. J. SMITH,
Chief Executive Officer and Secretary.

RENWICK HOSPITAL FOR INFANTS, SUMMER HILL, N.S.W.

Applications on prescribed forms are invited for the position of Honorary Assistant Ear, Nose and Throat Surgeon. Particulars from the Medical Superintendent.—W. L. PERRY, Secretary, Benevolent Society of N.S.W., 188 Oxford Street, Paddington (Sydney).

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P. R. E. MURNIN,
Manager.

BRITISH MEDICAL AGENCY OF N.S.W. LIMITED

HOSPITAL APPTS.—Contd.

ROYAL NEWCASTLE HOSPITAL.

REGISTRAR IN PATHOLOGY.

At the beginning of 1961 there will be a vacancy for a registrar in the Pathology Department.

The appointment affords experience in the four sections of pathology, namely morbid anatomy, haematology, chemical pathology and microbiology, and is suitable for persons interested in pathology with a view to proceeding to higher qualification in this specialty, or in other specialties.

The laboratory has been approved by The College of Pathologists of Australia for training prerequisite for the general examination for admission to the College.

Salary range, £33 14s. 4d. to £39 9s. 5d. per week plus living-out allowance of £2 17s. 6d. if applicable.

Applications should be forwarded to the Director of Pathology, Dr. J. R. S. Douglas.

A. E. SHARP,
Secretary.

ADELAIDE CHILDREN'S HOSPITAL, INC.

ASSISTANT PATHOLOGIST.

Applications are invited from medical graduates for appointment as Assistant Pathologist in the Department of Morbid Anatomy at the above hospital.

Duties: To assist with the routine work of the Department, to undertake research, and to help with post-graduate and undergraduate teaching. Opportunities will be available for the successful applicant to work for a higher degree.

Qualifications: Some experience in the other branches of clincal pathology is desirable, but not essential.

All applicants are requested to submit full professional and personal details, and name at least three referees.

The salary payable will be within the range of £2180-£2715 per annum, and will be paid according to experience and qualifications. Normal leave benefits will be available, and also Superannuation Benefits.

The term of appointment is for a period of three years with eligibility for re-appointment.

All applications must be addressed to the undersigned.

E. H. D. LINES,
Chief Executive Officer.

THE BROKEN HILL AND DISTRICT HOSPITAL, P.O., BOX 457, BROKEN HILL, N.S.W.

Applications are invited for the position of

RESIDENT MEDICAL OFFICER
(Male or Female)

at Broken Hill and District Hospital.

Salary Range: £1107-£2107, according to years of service in hospitals, less £3 18s. 6d. per week for board and lodgings. In addition, a Broken Hill margin of £130 will be paid after twelve months' satisfactory service. In the case of married applicants, a furnished residence is available at a nominal rental. Thirty days' annual leave; rail or air fares refunded after 6 months' service.

Duties: Rotating residencies every three months in medicine, surgery, casualty, obstetrics and anæsthetics.

Daily average in-patients 265.

Applications addressed to the Medical Superintendent should state full name, age, marital status, full particulars of qualifications and experience, and enclose copies only of any credentials.

R. H. NANKIVELL,
Secretary-Business Manager.

RENWICK HOSPITAL FOR INFANTS, SUMMER HILL, N.S.W.

Applications on prescribed form are invited for the position of Resident Medical Officer. Salary range of £1358 to £2108 p.a. less £3 16s. 10d. p.w. B. and R. Particulars from Medical Superintendent. Canvassing of Directors is prohibited.—W. L. PERRY, Secretary, Benevolent Society of N.S.W., 188 Oxford Street, Paddington.

ST. LUKE'S HOSPITAL, ROSLYN STREET, DARLINGHURST (SYDNEY).

Applications are invited from duly qualified Medical Practitioners for appointment to the undermentioned position.

HONORARY PATHOLOGIST.

Appointment to be for completion of four year period to May, 1961.

Canvassing of Board members will disqualify applicants.

Official application forms which must be used together with details of terms and conditions of appointment are obtainable from the undersigned.

W. M. LAVERS,
Secretary.

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2. Sydney. Solo practice in growing northern suburb. Gross cash about £5000. Goodwill £2500. Small fibro residence with surgery, in valuable site. Price £4000, also branch surgery (lock-up) leased at £3 per week.

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Practice No. 162. New England area.

Well-established opposed practice. Town population over 9000. District 20,000. Large, modern hospital, over 100 beds. Average G.C.T. £3223, rising. Attractive two-bedroom modern residence. Two surgeries and waiting room. Goodwill £1250. Property £5750. Deposit £2000. Balance at 6½% repayable over three to five years.

Practice No. 171. Radiological diagnostic private practice in attractive country city in N.S.W.

Unopposed. Serving population about 50,000. Enjoying support 40 to 50 doctors in area. Excellent hospital facilities. Average gross income £9600. Practice includes major X-ray plant in professional suite, centre of city. Price, goodwill £6500. X-ray plant, furniture, and furnishings, £3000. Purchase price for cash £9500 or terms price £10,000. Deposit £5000. Balance plus interest at 6½% repayable over 5 years. Further details to bona fide enquirers only.

Practice No. 170. Newcastle area.

Old established, lock-up opposed practice. General with obstetrics. Average G.C.T. £6600. Professional suite on weekly rental £10. Goodwill £1750. Deposit £750. Balance plus 6% repayable over two years.

For details of Victorian Practices, communicate direct with our Medical Agency Section, 201 Victoria Parade, Collingwood—Mr. C. S. Pearce—JA 4116.

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HOSPITAL APPTS.—Contd.

ST. JOSEPH'S HOSPITAL, AUBURN, N.S.W.

RESIDENT MEDICAL OFFICERS.

Applications are invited for the positions of Senior and Junior Resident Medical Officers. Salary in accordance with Hospitals Commission Agreement.

Hospital has daily average of 94 in-patients and 110 out-patients, and is visited by Specialists in Medicine, General Surgery, E.N.T., Urology, Orthopædics, Gynæcology and Ophthalmology.

Applicants to apply personally or in writing stating age, qualifications, experience, etc.

THE WESTERN SUBURBS HOSPITAL, CROYDON, N.S.W.

HOSPITAL PATHOLOGIST.

The Western Suburbs Hospital, Croydon, N.S.W., invites applications from medical practitioners with an appropriate higher qualification for the position of Pathologist.

This is a full-time position, the present salary range being £2944 to £3544 per annum according to years of service.

The successful applicant will take charge of a modern pathology department to be opened in the near future.

Written applications should reach the undersigned prior to Friday, 13th January, 1961.

R. G. MARTIN,
Secretary and Chief Executive Officer.

ROMA HOSPITAL, QUEENSLAND.

MEDICAL SUPERINTENDENT.

Applications are invited for Full-Time Medical Superintendent at the Roma Hospital.

Present salary classification £3240/£3290 plus Basic Wage adjustment £13—district allowance £30—leave entitlement 4 weeks paid recreation leave—1 week full pay sick leave and 1 week half pay. Superannuation not applicable to position.

Residence available, no rental, in close proximity to hospital; fuel, light and power provided free.

Roma Hospital has an established bed capacity of 138 beds (General 80, Maternity 18 and Aged and Senile 40). Daily in-patient averages 1959/60: General 38, Maternity 7, Aged and Senile 36. Daily out-patient average: 15. General and Widwifery Training Hospital. Flying Surgeon attends as the Consulting Surgeon.

Conditions of employment two (2) months' notice either side.

Applicants are to state marital status, age, qualifications, etc., and date available for duty and forward copies of references.

Applications are to be addressed to The Secretary, Roma Hospitals Board, P.O. Box 124, Roma.

WARWICK HOSPITALS BOARD (QUEENSLAND).

Applications are invited for the position of

JUNIOR RESIDENT MEDICAL OFFICER.

Salary range £1620/£2300, plus Basic Wage adjustments, at present £13. Board and lodging provided single man, furnished residence provided married man. Applications giving full details age, marital status, qualifications and experience should be forwarded to the Secretary.

PRINCE HENRY'S HOSPITAL, MELBOURNE, VICTORIA.

Applications are invited from legally qualified medical practitioners for the following appointments on the Honorary Medical Staff:

Honorary Assistant Neurological Surgeon,
Honorary Assistant Physician for Arthritis Clinic,
Honorary Assistant Otorhinolaryngologist.

Forms of application and further particulars available from the undersigned with whom applications are to be lodged on or before 21st January, 1961.

W. A. CROSS,
Manager and Secretary (Acting).

THURSDAY ISLAND HOSPITALS BOARD.

Applications are invited fr registered medical practitione for the position of Second Medic Officer, Thursday Island Hospit with salary rate of minim £3240 and maximum £3290 p annum. The commencing salar payable being commensurate wit qualifications and experience, to gether with extra cost of livi allowance of £95 per annum an Basic Wage variation £13 p annum. Appointee has right private practice and a furnish flat exclusive of soft furnishings provided free. The annual lea provision is 4 weeks per annu Appointment terminable by tw months' notice on either side.

Approved medical staff estab lishment comprises Medical Supe intendent, second Medical Offic third Medical Officer and Tub culosis Officer. Main hospital dai average in-patients is at pres 45-50, daily average of ou patients is 50. Waiben Tube culosis Hospital has daily averag in-patients 35—out-patients nil.

Duties of appointee could inclu medical surveys of the Mainla aboriginal settlements and Torr Straits Islands. Applications whi close on 3rd January, 1961, shou contain particulars of qualific tions and experience and shou be forwarded air-mail to t Secretary, P.O., Box 4, Thursda Island.

THE TOWNSVILLE HOSPITALS BOARD.

ANÆSTHETIC REGISTRAR.

Applications are invited for th position of Anæsthetic Registra Townsville Hospital.

Salary classification: £2463 £2843 per annum which include Northern Allowance and Bas Wage adjustments to date. Com mencing salary in accordance wit previous experience of appointe

Full board and accommodatio is provided for an unmarri appointee and £100 per annum paid in lieu to a married ma living out.

Annual recreation leave: fou weeks.

Annual sick leave: one week f full pay, one week on half pay.

In addition to the above positio the medical staff comprises Medi cal Superintendent, Medical, Out Patients, Orthopædic and Surgica Registrars, 10 Resident Medica Officers and a part-time Consul tant Staff including Specialis Anæsthetist.

The term of appointment is 1 months, with right to apply fo reappointment for a further yea Applicants are required to give a undertaking that, if appointe they will remain in the services o the Board for the full term.

This hospital is a modern, we equipped hospital which acts as t base hospital for a large area o North Queensland.

Applications should be addre sed to the Secretary, Hospital Board, Townsville, Queensland.

Applicants must state full name age, qualifications, experience an marital status.

Certified copies (not original of testimonials should be fo warded.

Further information, incl copy of the Annual Report, nt be supplied on request.

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HOSPITAL APPTS.—Contd.

OCKHAMPTON HOSPITALS BOARD, QUEENSLAND.

ESIDENT MEDICAL OFFICER.

Immediate applications are inited for appointment at the ockhampton Base Hospital of ne Junior Resident Medical ficer.

Salary:

£1633 p.a. for new graduate.

£1848 p.a. with one year's experience.

£2063 p.a. with two years' experience.

£2313 p.a. with more than three years' experience.

Board and lodging supplied ithout charge to single person r an allowance of £100 p.a. to arried man to live out un... arried quarters are available.

Salary rates are subject to cost-living adjustments.

The hospital has departments of edicine, surgery, obstetrics and ynæcology, eye, E.N.T., anæsetics, radiology, radiotherapy, nd psychiatry. A thoracic unit f 52 beds is attached and thoracic rgery is performed.

A resident staff consists of edical Superintendent, Senior sident Medical Officer and five sidents.

plications should be addressed the Secretary, Rockhampton spitals Board, Rockhampton, ueensland.

CAIRNS BASE HOSPITAL, QUEENSLAND.

RESIDENT MEDICAL OFFICER.

Applications are invited for a vacancy at the Cairns Base Hospital as Medical Registrar. Salary classification: 1st year £2468, 2nd year £2593, 3rd year £2718, 4th year £2843, which includes allowances to date.

Medical Staff comprises Medical Superintendent, Medical Registrar, Surgical Registrar, and five Resident Medical Officers. Hospital daily average 205. Active surgical unit. Board and accommodation is provided single appointee or free residence for a married appointee. Specialists in surgery, medicine, orthopædics, E.N.T., ophthalmology, dermatology, psychiatry, radiology, and radium visit the hospital at regular intervals. Applicants to state age, qualifications, experience and marital status, also attach copies of testimonials. Notice of termination of service one month either side. Applications close with the Secretary, Box 902, Cairns, on Wednesday, 18th January, 1961.

A. C. McALLISTER,
Secretary.

SYDNEY HOSPITAL, SYDNEY, NEW SOUTH WALES, AUSTRALIA.

CARDIOLOGIST IN THE KANEMATSU MEMORIAL INSTITUTE.

Applications are invited from medically qualified persons with the necessary training and experience to undertake full-time clinical and research work relating to cardiac and hæmodynamic problems. The appointee will be in charge of a small, newly constructed and equipped investigational unit and will be provided with the necessary laboratory space, staff, beds and other facilities in the clinical research section of this Institute. He will be expected to participate in the clinical cardiovascular services of the hospital, but the load of routine work is light and his major pursuit will be in developmental and investigational work of his own choosing. The other two research units are concerned with renal disease (general clinical service including an artificial kidney, and fundamental research) and vascular disorders (lipid metabolism, hypertension, obesity and other interrelated interests).

The appointment is for four years in the first instance with a salary in the Specialist scale, £3184-£4144 (Aust.). The appointee will be eligible for superannuation after twelve months. Consideration will be given by the Board to providing reasonable travelling and removal expenses.

Further information should be sought from Dr. H. M. Whyte, Director of Medical Research, Kanematsu Memorial Institute, Sydney Hospital, Macquarie Street, Sydney. Applications giving details of the proposed line of work, the earliest date of taking up duties, age, qualifications, experience, etc., should include a medical certificate of fitness, the names of three referees and a list of published work. They should be sent to the President, Sydney Hospital, to arrive before January 21, 1961.

E. C. DOCKING,
Secretary.

MAREEBA HOSPITALS BOARD.

Applications are invited for the position of

RESIDENT MEDICAL OFFICER,

with not less than one year's previous hospital experience. Salary £1898 to £2363 according to experience, with free board, quarters and laundry if single. Further information on request concerning married accommodation. Public Service recreation and sick leave conditions. The hospital is well staffed and equipped and has daily averages of 65 in-patients and 50 out-patients.

Mareeba is the attractive and thriving tobacco capital of North Queensland with an excellent climate and amenities. Good road network to the coast and the scenic hinterland.

State age, marital status, qualifications and experience to the Secretary, P.O., Box 145, Mareeba, North Queensland.

THE MANLY DISTRICT HOSPITAL (175 BEDS).

RESIDENT MEDICAL OFFICERS FOR 1961.

Applications are invited for these positions at the above hospital. Salary in accordance with the Determination, at present: 1st Year £1074 p.a., 2nd Year £1374 p.a., 3rd Year £1674 p.a., 4th Year £1974. Exceptional opportunities exist for practical experience in Surgery, Orthopædics, Anæsthetics and Obstetrics.

For further details telephone the Medical Superintendent, XU 1143 (Sydney).

FRANK MEDDOWS,
Secretary and Chief Executive Officer.

RACHEL FORSTER HOSPITAL FOR WOMEN AND CHILDREN, REDFERN, N.S.W.

SENIOR AND JUNIOR RESIDENT MEDICAL OFFICERS (Female).

Applications are invited for the above vacancies for 1961. Salary in accordance with the Hospitals Commission determination.

Applications to be addressed to MARY C. PUCKEY, General Superintendent.

MISCELLANEOUS

LUXURIOUS front suite available on sessional basis, top of new building, Macquarie Street, Sydney. 'Phone BW 6385.

FOR RENT OR SALE. Double suite of rooms, North Shore Medical Centre, St. Leonards, Sydney. Write No. 482 c.o. this office.

HALF SHARE of surgery for sale in first-class building in Macquarie Street, Sydney. Excellent conditions. Phone FY 2900, 7.30 to 8 a.m. or 6.30 to 7.30 p.m.

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Enquiries are invited from doctors desirous of obtaining the use of a very well-appointed suite in Macquarie Street, Sydney, on a permanent basis. A small parcel of shares entitling the holder to use the rooms for five half-day sessions weekly is available for transfer.

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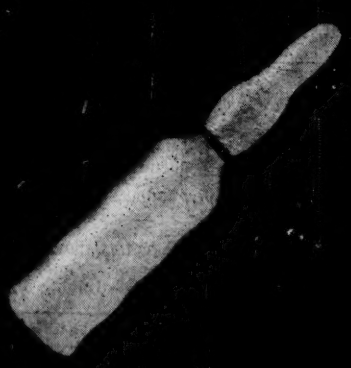

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